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THE INNOVATIONS OF MEDICAL AND SURGICAL PRACTICE.

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Theory and practice should harmonize with the facts observed in the different stages of medical progress. Two extremes, alike prejudicial to advancement in science, are notable at present, being an undue regard for the remote past and an anxious craving for novelty on the part of the medical profession. The statistics of bygone days, so far as they have been carefully and judiciously collected, must have an interest for all time, as a basis of comparison with similar data which have been since presented. But when the inferences drawn from past periods by contemporaneous observers without the lights reflected by subsequent investigations are brought to operate upon this era, it must be evident that they cannot contribute materially to the formation of a correct opinion upon any general principles in practice. Facts which are well authenticated must serve as a basis upon which to erect the superstructure in any department of knowledge for after ages, and the only question in this case for investigation is the competency and honesty of the individual observing and recording such data. We must have a voucher for the character of the witness. As we cannot rely upon the reports of those who are not educated and accustomed to the use of the ophthalmoscope or the microscope, as to the characteristics of the structures which are the subjects of

examination with these instruments, so it may be held that the untrained exercise of the senses of sight, hearing and touch may be deceptive and not trustworthy, however sincere the observer may be in seeking information, and whatever may be his good faith in communicating these seeming realities. Thus it turns out that many apparent facts of the early history of medicine cannot be accepted as genuine; and the proneness to refer to such observations as testimony of what was learned by our forefathers, shows a want of discrimination between the real and fictitious in clinical experience. Before the discovery of Harvey, for instance, what significance could any accidental counting of the pulsations of the wrist have, in elucidating a febrile or inflammatory disease? and yet it is a very supposable case, that, without recognizing the standard of health or giving the number of beats per minute, such an observer should describe the pulse as slow or frequent; thus, for lack of the requisite knowledge, giving no indications upon which to form an estimate of the real state of the circulation. On the other hand, if, in connection with a casual count of the pulsations, it was noted that it beat eighty, a hundred or a hundred and twenty times in a minute, it would constitute a well defined element in the history of such case. In other words it would be a fact within itself of specific value, and hence worthy of being perpetuated by record.

Although many original special observations are recorded on the part of the pioneers in the vast field of medicine, yet comparatively few of those disjointed data serve to enlighten the medi-

cal philosopher of the present era as to the principles which operate in the performance of the healthy functions, or to assist the pathologist in solving the disturbances of the physical organism. It is, therefore, unprofitable to array the vague conceptions of these early dreamers in the way of precedents for theory or practice in the light of the advancements in medical science; and the quotations of such authorities in standard treatises or in elaborate articles upon any special subject, has no practical end, nor can it serve any purpose for our improvement. Those who desire to display their researches in the lore of Hippocratic medicine remind us of the diligent collector of fossils which interest by their antiquity, yet shed no beam of light upon passing events. They serve simply to illustrate what has been, without giving us any clue to what should be under the changed order of things; and it is surprising that a plea should be made in behalf of any proposed modification upon the effete hypothesis of abandoned vital theories, that should serve as lighthouses to guard us against breakers that may wreck our vessel of progress. The fathers of medicine may be cited as striking instances of absurd doctrines that have been discarded, but never as examples for our imitation or as guides for our advancement in the practical department of medicine.

Turning to the other extreme, of a penchant for novelties in medical development, we are as little benefited by the ignis fatuus light of the present, as by the spectres and ghosts of the past. The true spirit of inquiry which leads to thorough examination of any measure before adopting it in practice, is to a great extent laid aside by the eager disposition to do something new; and while the initiative element accompanied by a wholesome caution is a proper characteristic of true investigation, this feature of innovation upon recognized modes of proceeding without such precautions, is destructive of the entire framework, which has been the gradual growth of experience and induction. The desire for change simply on account of the change from stereotyped forms is unphilosophic and inexpedient, yet many of the younger members of the medical profession at the present day are prone to seize upon recently proposed modes of treating diseases and new processes in the performance of surgery, without due thought as to the matter of improvement. The taste displayed in the selection of elegant preparations is not always accompanied, as it should be, with a consideration of their efficiency, and as these specimens, so nicely put up, are intended to captivate the eye, it

often turns out that they are comparatively inert. It is not by any means objectionable that medicines shall be presented in a form that is acceptable to the stomach, yet this must not be done at the sacrifice of energy in its effect upon the general system.

Certain combinations which were formerly in good repute for the attainment of definite results, are now considered as old-fashioned remedies; such as castor oil with spirits of turpentine, jalap and cream of tartar, snakeroot of Virginia and epsom salts, calomel and aloes, ipecacuanha and tartar emetic, digitalis and squilla, sarsaparilla and iodide of potash, assafoetida and camphor, acetate of lead and opium, valerian and hartshorne, linseed oil and lime water, ergot and cinnamon, etc., etc. In lieu of these commonplace articles there have been introduced latterly a great many potential substances that have had a larger share of the attention of practitioners, including bromide of potash, bromide of camphor, chloral hydrate, salicylic acid and its salts, carbolic acid, pilocarpine, podophyllin, cundurango, coca, mannita, chian turpentine, iodoform, pancreatine, listerine, duboisine, methylene and a vast collection beside, with the overshadowing foliage of the eucalyptus. We may question the propriety of setting aside remedies of solid worth and tried virtues for others that are more palatable to the patient or more readily manipulated by the druggist, and the wisdom of sacrificing the certain action of medicines to the charm of novelty or the elegance of preparations, as in such articles as the wine of cod liver oil and wine of peptone, in which the original properties are so modified as no longer to secure their proper influence upon the organism. Whoever abandons the reality for the shadow of medication is making a retrograde movement.

The propagation of the influence of medicinal substances to the organism has been undertaken in a variety of channels, yet none have proved so efficient as the hypodermic medication; and while this was adopted long ago with a few articles, it has been so extended of late as to entitle it to a place among the novel improvements of the age. Morphine and quinine have been resorted to for many years by their subcutaneous injection, with the happiest effects; ergotine and pilocarpine have gradually come into general use by the same process; while ether, brandy and aqua ammonia bid fair to maintain their place among the useful applications in this form. But the preëminence given latterly to the use of carbolic acid by subcutaneous injection claims something more than a passing notice. Thus

applied, it effectually arrests erysipelas, and ensures the resolution of glandular tumors, especially in the inguinal region; affording likewise the surest guarantee for the disorganization and removal of hemorrhoidal excrescences. My individual experience sustains all the most favorable claims that have been proffered by different observers of its salutary effects in their several modes of application, and I am prepared to expect yet greater advantages from the extension of its use to other forms of disease. The grandest achievement, however, for hypodermic application, is the very recent employment of the permanganate of potash in this way, as an antidote to snake poison; and the instances have been so multiplied as to leave no doubt of the efficacy of this magnificent discovery.

There has been no period in the history of medicine when the utilitarian element played so conspicuous a part in therapeutics as at present, and the why and the wherefore are swallowed up by the recognition of the fact, in the benefit conferred by any special mode of treatment. Theory is held to be secondary to practical results, in determining upon the acceptability of a proposed measure; and if an accumulated series of experiments satisfy us that in a given combination of symptoms a uniform salutary modification may be secured by a certain routine treatment, it is clearly incumbent upon the physician to adopt it, though the rationale may not be well understood. As a homely illustration—if it is found that hiccup, as it ordinarily occurs, is invariably relieved, by swallowing in measured draughts a glass of sugar and water, who would think it requisite to investigate the philosophy of this simple process before using it. It is, of course, all very well when our theory can go along with our practice, yet experience is, perhaps, the basis of the most valuable resources in our profession, and nothing should be rejected because it does not admit of a rational explanation. Emphatically, the practitioner may say: "For that which I do I allow not; for what I would, that I do not; but what I hate, that I do." When we are assured that thus saith the record of intelligent observation, we must, "*nolens volens*," put the measure into execution; and the "test of experience" is, for the most part, a correct guide in practice.

That etiology, pathology and therapeutics should be studied and form the basis of all treatment of disease, and that theoretic deduction and induction are important to an intelligent application of the appropriate remedies, does not in any form militate against the utilizing facts

analogically, by inference from what has been presented to the recurrence of the same effects under similar circumstances. The relation of cause and effect may be clearly established without understanding the conditions of the sequences; and medical men should not be over nice in exacting a minute comprehension of the mode in which the curative influence of medicines is effected. If a patient suffers from intermittent, and takes quinine in sufficient doses, the disease ceases to appear, yet we may not have a clue to the precise operation of the medicine in securing this result, while reason and common sense tell us that it is rational and even scientific practice.

This empirical treatment of disease is not at all inconsistent with the thorough comprehension of all that is attainable in regard to the theory of medication, and far be it from me to raise any barrier to the investigation of the principles that should regulate the application of means for the correction of the disorders of the animal economy. The noblest aspiration of the scientific physician in his search after truth, should be to fathom the intricacies of diseased action upon the organism, and the hidden modifications of these disorders by medicinal agents, and establish, so far as may be practicable, a rational solution of their relations.

There has, undoubtedly, been important discoveries in the therapeutic appliances during the last quarter of a century; and the experiments of new remedies have added valuable agents to the *materia medica*, that are as fully entitled to a permanent place in the list of medicines as any which have been in use for a longer period. Yet it must be admitted at the same time that others of a mere fanciful character have had a dazzling reputation without substantial merit.

The fruitless attempts to replace chloroform and sulphuric ether as anæsthetics, illustrates most forcibly the restless seeking for novelties; and the percentage of fatal results from the limited experiences of a few individuals in this wild chase of a will-o-the-wisp, should serve as a caution to the conservative practitioner, and make him contented to let well enough alone.

Reform of abuses in every phase of medical and surgical applications, has been a marked characteristic of the last decade, and perhaps in nothing has it given better fruits than in the adoption of antiseptic processes; yet the admixture of error, even in this, has become apparent very recently, in the discovery that the carbolic acid spray, instead of being advantageous, has been prejudicial in the large majority of cases, if not, indeed, generally, in surgical, and especially in gynecological

logical operations. This wonder of an hour kept the profession spell bound under the influence of a great name, but the bubble has burst under the touch of another equally conspicuous.

We find that even the domain of obstetrics has been invaded by the latter-day innovators, and the best established rules for the guidance of the accoucheur are proposed to be set aside; as, for instance, in omitting to use the catheter for evacuating the bladder before applying the forceps, and in the substitution of chloroform, avowedly free from danger in parturition, by the less manageable resort to laughing gas, which should cause a smile of derision by every obstetrician who has occasion to adopt an anæsthetic in these cases. And it has been gravely recommended, in cases of adherent placenta, to produce that most grave of all displacements of the womb, inversion, for the purpose of facilitating the speedy and complete detachment of the adherent mass. It is a notable suggestion, which should be observed in its avoidance by all obstetricians.

In gynecology, which, as now presented, is a grand novelty, there is no calculating at what point the innovations will find a limit, and the opening of a woman's abdomen will perhaps ere long be resorted to with as little ceremony as an examination per vaginam with the speculum was made twenty years ago. Laparotomy has even been practiced as a means of diagnosis, in advance of any positive indication for this procedure as a curative process. Far be it from me to detract from the well earned fame of those who have been prominent in boldly pushing forward improvements in this department, yet it must be admitted that some have overleaped the legitimate bounds of a wise discretion in making human vivisections.

A few years since I was present when an exploratory incision in the linea alba was made by one of the most distinguished gynecologists of the present age, the cavity being opened to verify the nature of the cause for discomfort in the hypogastric region, from which the lady had suffered for some months previously. The bladder, uterus and ovaries being examined, a slight puncture was made in one of the ovaries, from which about a teaspoonful of serous fluid was discharged and the abdomen was closed with silver wire sutures, thus closing an operation to all appearance that had no other result than to enable the surgeon to determine whether any abnormal adhesions of adjacent organs required division. It was the good fortune of the oper-

ator that the lady, whose position in society would have attracted criticism, escaped without any serious consequences of this intra-peritoneal exploration. The high reputation of this prominent surgeon might warrant such a proceeding, but it certainly should not be imitated by those of lesser fame.

There seems to have sprung up within ten or fifteen years a sort of monomania for gynecological investigations, extending to the younger men who have entered the ranks of the medical profession latterly, and it is to be apprehended that the attractions of this specialty may seriously interfere with those acquirements which are requisite for the general practitioner. A Spencer Wells, a Keith, a Sims, a Bozeman, and an Emmett, with other notables in this department, by publishing their grand achievements, have turned the heads of the rising generation of medical men toward gynecology. The injurious effect, in a literary collegiate course, of neglecting some text-books and giving exclusive attention to others, is more manifest in the consideration bestowed upon a special branch, to the neglect of the more important topics in the curriculum of the medical student. It is a grand mistake, in entering upon the preliminary departments of medical knowledge, to devote special study to those matters which are supposed to fit the student for a specialty, let that be in whatever direction his inclinations may point. In like manner, it must prove a drawback to proper professional development, for one entering upon practice to limit the area of his services to one isolated class of diseases, as the mutual relations of parts involve so many reciprocal actions and reactions, that a general acquaintance with the disorders of the animal economy is requisite for a full comprehension of any particular disease. There cannot arise the same impediment to a selection of the medical or surgical field of service at the outset, for there is a radical distinction in the qualifications requisite for the one or the other department of duty, and if an individual is conscious of a decided proclivity in either way, there can be no objection to, following his own inclination when he enters upon the practical duties of his profession. The rock upon which young men are in danger of foundering is to allow the magnificent attainments of gynecologists to captivate them in such a way as to divert their investigations from other topics essential to success as practitioners.

While many new modes of treatment, medicinal and surgical, have stood the test of practical application for a series of years, others have, after

a brief career, been found wanting in the essentials for adoption in regular practice. Among these, it is matter of great regret that a new process which promised so much at the outset as nerve-stretching, should have been doomed to rest in the tomb of the Capulets, with such pall-bearers as Socin, Langenbeck, Billroth, Weiss, Bergen, Benedict and Althaus.

It is to be hoped that the reunion of divided nerves may not have the same fate, yet the statistics are as yet too limited to furnish any guarantee for its final triumph.

(To be Continued).

A NEW FORM OF SPLINT FOR FRACTURE OF THE PATELLA; AND REPORT OF A CASE.

BY T. CURTIS SMITH, M.D.,
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It is quite needless to inform any surgeon that the maintenance of the widely separated fragments in apposition, in fracture of the patella, is a desideratum devoutly desired. However easily steady apposition of fragments of bones may be attained in other fractures, this is one where the maintenance of apposition long enough to secure osseous union has persistently defied all skill in all time past. Bony union has been, and is now, the exception and not the rule.

The causes of failure are very apparent, *i. e.*, the traction of the quadriceps extensor muscle drawing the upper fragment upward, and that of the ligamentum patella, if not drawing the lower fragment downward, at least does not hold it up to its proper place.

Now, it is easily noted that the insertion of the quadriceps extensor into the patella is by a fleshy tendon as broad as the superior border of the patella, and that that insertion of this muscle is as thick as the bone itself. So that the upper surface of insertion of this muscle is on a plane with the upper surface of the patella, thus leaving no projection or shoulder against which a splint may be braced and permanently fastened, in order to hold the upper fragment down to its place. Again, the layers of fascia and integument, not always thin, which cover the upper border of the patella, add to the difficulty of pushing down the upper fragment, or of holding it down, very materially.

Again, any considerable pressure by any splint heretofore devised (as far as my limited knowledge goes) has a noted tendency to tilt up the lower margin of the upper fragment, and thus

defeat accurate coaptation. The reason for this is plain. Pressure brought on the upper border of the patella must be had by pressing the quadriceps extensor backward at its point of insertion. This necessarily carries the upper border of the bone backward, and therefore tilts the lower edge of the upper fragment forward. The anterior plane of the insertion of the muscle and of the anterior surface of the patella being quite exactly the same, it must necessarily be the case that any considerable pressure at the upper border of the patella must be had at the expense of pressing the tendon backward; but as the insertion is broad, thick and dense, and its reflex contractile response to pressure quite considerable, it becomes at once impossible, or next to impossible, to secure a sufficient projection or shoulder at the superior border, against which to press with a splint in order to bring down and hold down the upper piece of the broken bone.

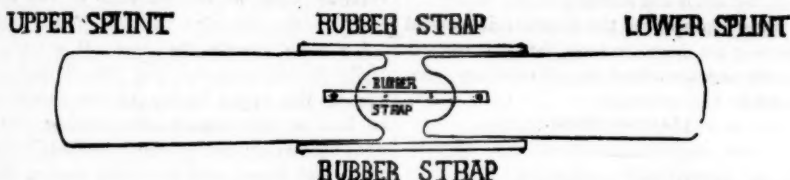
The ligamentum patellae below offer very similar reasons for inability to hold the lower fragment up, but not to the same extent as the quadriceps extensor above.

To obviate this difficulty, I have devised a splint made to bring pressure to bear on the lateral margins of the bone, where, as will be seen by the shape of the patella, sufficient shoulders may be found against which to press the splints with as great force as may be needed to bring the fragments together. True, the tendons of the vastus internus and vastus externus muscles extend to those lateral margins to a small extent, but not sufficiently to interfere greatly with the mechanism of this splint. The splints may be made of wood, hard rubber or wire. If of wood, take a pine board one inch thick, three or three and a half inches wide. The lower end should be narrowed to a little over two inches. Now groove out one surface deep enough and broad enough to let the tendon of the quadriceps fall into it. Let the groove become gradually more shallow from the lower end upward. Now make a round notch in the lower end, of just such size as that the sides of this notch will fit on the shoulders or lateral projecting margins of the patella, and at the same time be free from pressing on the upper border where the tendon of the quadriceps extensor is inserted. The whole of the pressure will thus be brought against the comparatively projecting sides of this rather double wedge-shaped bone. And no pressure will be had at the upper edge of the bone to cause tilting of the fragments by pressure on the muscular tendon. The lower splint should be made in just the same

way as the upper, only the groove must be deeper and the notch more pointed, to fit the wedge shape of the lower half of the bone. The corners of the board may be rounded off and smoothed up, so as to present a neat and workmanlike appearance, and take away much unneeded bulk and weight.

under the anterior elastic strap and bring them down to their proper place. Or a small strip of whalebone may be bent and slipped through the notches into the grooves after the splint has been applied, and kept there to steady and hold level the fragments.

This splint, by virtue of its reaching well down



There should be screws set into the sides of each splint, two inches or more from the ends, one on each side of each splint, and also one on the top of each splint, in the middle, at about the same distance from the margin of each notch, six in all. To these may be attached elastic rubber straps of sufficient strength to overcome the contractile power of the resisting muscles, and so attached as that they will be tightly stretched when applied. A very moderate continued pressure from these elastic straps will in a few hours overcome all the resisting power of a strong quadriceps muscle, as the muscle will become exhausted and cease to resist the strain brought upon it.

Called to a case of transverse fracture of the patella, how should we apply these splints? First have these splints well and carefully made to fit the patella. Always be sure that the ends of the two splints on each side of the notches do not come quite together when properly applied, and that they fit down on each side of the patella neatly and smoothly. Now secure along splint for the posterior surface of the limb, reaching from near the gluteal crease to the lower third of the gastrocnemius, or near the heel; pad it well, especially just behind the knee. Also pad the anterior splints above described. Apply the posterior splint and the lower anterior splint, securing them well by a roller. Now tie a strap around the upper end of the long splint and thigh. This steadies the long splint in its whole length. Now bring down the upper fragment of the patella, apply the upper anterior splint and bind it with a roller bandage. If well applied, we believe the edges of the bone will be coated and retained in place, or will be brought down by the steady pressure of the elastic bands. If now we find the fractured edges of the bone are tilted up we can put a thin or thick pad, as may be needed,

over the lateral borders, will also be well adapted to the management of other fractures of the patella than those that are simply transverse. In a longitudinal fracture the fragments will be more readily held in apposition by it than would the fragments in the more difficult form above named, and for which this splint was especially devised.

The advantages claimed for this splint are (a) the groove letting the tendon of the quadriceps extensor in, thus relieving the extensor border of the patella from pressure that is sure to tilt the upper fragment; (b) the pressure brought to bear on the free lateral borders of the bone; (c) the reasonable certainty of holding the bone in its place; (d) and last, but not least, the continued tension of the elastic straps that keep up continued tension and persistently resist the contractions of the quadriceps extensor muscle. Also in longitudinal fractures or in stellated fractures its tendency to hold the fragments in apposition, by virtue of the pressure on the lateral borders.

Case of Transverse Fracture without Separation of Fragments.

In this connection I wish to relate briefly the history of a case of transverse fracture of the patella, occurring in my practice in December, 1872, and which needed no splint whatever. The report of this case was published in the *American Journal of Medical Science*, April, 1873, p. 429.

Early in the month of December, 1872, Mr. Silas Julius, aged fifty-one, a stout, muscular colored man, while walking on the ice, slipped and fell heavily on his right knee. He felt considerable pain and weakness in the joint, but arose and walked to his house, a short distance from where he fell. I saw him the next day and found a transverse fracture of the patella. The fragments were still in close contact; the lower

edge of the upper fragment being tilted up to a noticeable extent, but not down away from its fellow in the least.

The patient was sitting in a chair, limb semi-flexed. When the limb was flexed so as to put the quadriceps on the stretch, the fragments came into exact apposition; but if the limb was extended, the upper fragment would override the lower and project above it the full thickness of the bone. No splint was applied, but the limb left flexed at nearly right angles and ordered to be kept so.

A few days later, Dr. E. C. Fisher, now of Racine, Wis. (a gentleman of ability and professional honor) came to see it with me. We found a disobedient patient. He had been up, walked about, and was sitting up on a chair when we arrived at his house. The leg was slightly flexed. On inspection the upper fragment was found to be actually overriding the lower one.

This condition was so directly the reverse of what we usually find in transverse fracture of the patella, that we examined the case with great care and became entirely satisfied that we were not mistaken, and that the upper fragment was actually overriding the lower one. On flexing the leg, the upper fragment slipped into its proper situation, becoming at once closely coapted to its fellow below. After this the limb was kept constantly flexed until firm osseous union was effected, which was complete in about six weeks, leaving no perceptible deformity. No dressing of any kind was needed to hold the fragments together.

The history and results in this case are directly opposed to what usually obtains in such fractures. We always expect separation of the broken pieces of this bone in transverse fracture, because of the contraction of the quadriceps extensor, and from effusion into the joint.

I was then, and am still, unable to account for the want of the usual separation of fragments in this case, unless it was that the synovial membrane on its under surface, or some slight ligamentous attachment yet unruptured, bound the pieces together. No injury had been inflicted on the quadriceps muscle, nor was there any paralysis affecting any part of the extremity. I have never seen a report of any similar case. Dr. Fisher, who saw the case with me, told me that he related the case to an eminent surgeon in Edinburgh, Scotland, while there visiting the hospitals. This surgeon stated to him that there was one published report of a similar case, but I have not been able to learn where its history may be found.

HOSPITAL REPORTS.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

CLINIC OF WILLIAM GOODELL, M.D.,

Professor of Clinical Gynecology.

Reported by WM. H. MORRISON, M.D.

Prolapse of the Womb, from Hypertrophic Elongation of the Infra-vaginal Cervix—Ovarian Cyst.

GENTLEMEN:—The case that I shall first bring before you is one of a very interesting disease; interesting principally on account of its rarity. I think this makes the eighth case that I have seen. This is rather a large number for one physician to see. It consists in a hypertrophic elongation of the vaginal cervix, *i. e.*, that portion of the cervix which projects into the vagina. We constantly meet with cases of conical cervix, in which the neck of the womb is a little longer than natural, causing dysmenorrhœa and often sterility, but in the cases of hypertrophic elongation we have a positive growth of the cervix. In this girl the cervix is something like two inches in length.

This girl is twenty-two years old, and has for nine years suffered excruciating pain at her monthly periods. Her physician tells me that he has to give her poisonous doses of morphia before he is able to relieve the pain. The operation that I shall perform to-day will, I think, lessen this pain, but it may be necessary after the parts have united to dilate the cervical canal.

I shall now expose the parts, and as I do so, you see the cervix projecting from the vulva, resembling somewhat the male organ. I pass the sound and get a measurement of four inches. These are the cases which in times gone by were considered hermaphrodites. The cervix was considered to be the penis, and the two sexes were supposed to be combined. The same mistake has also been made in cases of hypertrophy of the clitoris. The neck of the womb is one and a half inches longer than it should be, and projects fully two inches into the vagina. The cause of the dysmenorrhœa is twofold: first this long canal, and secondly the congestion at the menses which blocks up the canal. This is the longest cervix that I have ever met with.

In operating on cases of this kind there is one source of danger. We cannot tell how far down Douglass' pouch extends. Sometimes it is lower than normal, and in such a case there is danger of opening it. There is some prolapse of the womb and also of the ovaries, due to the weight of the cervix. I now pass a sound into the bladder, to ascertain how low down it comes. I shall amputate a portion of the cervix with a scalpel. I catch hold of the upper portion of the neck with a tenaculum, to prevent it from slipping away from me. I now remove about one inch of it by a few strokes of the scalpel. The womb now measures three inches. Before introducing the stitches I shall dilate the canal a little. I shall use the sutures introduced by Hegar, a German gynecologist. The stitches are passed like the spokes of a wheel, from the mucous membrane of the canal to that of the vagina, and in that way union occurs

at the edges, and when cicatricial contraction takes place it is from within outward; that is in the direction in which we wish it, for it will thus tend to draw the os open. You see that the os represents the hub of the wheel, the outer edge of the cervix the rim, and the stitches the spokes. The union here will be slow, for I shall not be able to get the parts in exact apposition, on account of the wound being a circular one. I shall have to put in a great many stitches, and shall probably leave them in two weeks.

You see how low the womb is. Why is that? There are two reasons for it: One is that I have drawn it down, and the other is, that it has been pulled down by the weight of the enlarged cervix. The name of this disease is prolapse of the womb, from hypertrophic elongation of the infra-vaginal (or of the vaginal), portion of the cervix. That is a name which tells the whole story. I have on several occasions shown you cases where there was prolapse of the womb from hypertrophic elongation of the supra-vaginal portion of the cervix. This is the most common form of hypertrophy of the cervix.

I here show you the result. I have introduced fourteen stitches. As I say, the tendency of the cicatricial contraction will be outward, in the direction of the stitches. Although theoretically this is very good, yet practically it is not so good, because there is also some circular contraction, which tends to make the os smaller. I now push the womb high up.

After an operation of this kind you have to look out for secondary hemorrhage, for the parts, being composed of erectile tissue, are very vascular. If hemorrhage should occur, hot water (110°-115°) should be injected. If that fails, alum water should be used. The hot water will usually stop the bleeding, and does not interfere with union by the first intention. Alum does not interfere with union. I never use Monsel's solution in such cases as the present, but where the healing is by granulation, as in cancer, I sometimes employ it.

When I bring her before you, two weeks from to-day, I expect to find the womb and ovaries much higher up. The prolapse has, I think, been one cause of her suffering.

Ovarian Cyst, Probably Malignant.

The next case is one of obscure tumor, which I shall examine before you, and try to arrive at a diagnosis. She is fifty-three years old; has been married sixteen years, and is sterile. It is extraordinary how that word "sterile" enters into the history of these cases. In examining cases of abdominal tumor, fibroid tumor of the womb and cysts of the ovary, we find a very large proportion of the cases in women who are married and sterile or else are virgins, showing that the command given early in the history of the world, to "increase and replenish the earth," is a law of nature, and cannot be violated without causing some lesion.

Last February this lady first noticed a tumor in the left side, and since then she has been losing flesh. This loss of flesh may have a great deal of significance, or it may have very little. It may have been due to the worryment following the discovery of the tumor, or it may have been

due to the tumor itself. The history goes on to say that "both broad ligaments are contracted. The fundus of the womb is felt high up, anterior and to the right. Connected to it by the broad ligament is a large, fluctuating mass. It has enlarged considerably during the past month."

The question which I just now asked her was a perfectly proper one, and you notice the indignant tone in which she replied, showing that she is perfectly sound upon that point. The question I asked was this, "Have you tried not to have children?" but you see she has principles on that point. I am very sorry to say that in this country principles on this subject are frequently absent.

There is evidently fluid in this tumor, and it is tender to the touch. Why is it tender? I do not know. The history of ovarian cysts is usually one of freedom from pain. When there are adhesions there may be tenderness. I also notice that the tumor is not mobile of itself. When I move it I also move something to which it is attached, which is the broad ligament. This must be either an ovarian cyst between the two layers of the broad ligament, or else a broad ligament cyst. These are different cysts. Sometimes a cyst of the ovary develops between the two layers of the broad ligament, and we then have an intra-ligamentous ovarian tumor. This tumor is very difficult to remove, because it has no pedicle and has to be enucleated. The cysts of the broad ligament are several. There may be a cyst of the hydatid of Morgagni. I have no doubt that many of you have, in your examinations, found a little body, as large as a pea, filled with a gelatinoid fluid, at the fimbriated extremity of the Fallopian tube, or more correctly, of the oviduct. This is the remains of a foetal structure, and is so common that it has been given the name of the hydatid of Morgagni. We have a second variety of cyst due to enlargement of the tubules of the parovarium. We may have a third variety, what might be called the free lancers of the broad ligament, due to the formation of cyst in the meshes of the connective tissue, not dependent upon any single organ, but occurring here and there in the tissue uniting the two layers of the broad ligament.

We have found, then, in this case, a fluctuating tumor, a lack of mobility and great pain. On percussion, I find resonance all around the tumor. Over the cyst there is some resonance transmitted through the tumor. I shall now examine per vaginam. Her menses stopped in December, 1877—four and a half years ago. The womb is fixed. I lay this down as a good rule for your guidance: when you find a small tumor in the abdominal cavity, connected to the womb by the broad ligament and the womb immovable, the first thing that you should think of is malignant disease. I can, by using considerable force, communicate a sort of movement to the womb, but it gives her pain. The cervix is larger than it should be in a woman fifty-three years old. Although the womb is immovable, I do not feel that mass of exudation posteriorly that I should find if the fixation were due to cellulitis; besides that, it is rare to have cellulitis in a woman so old. Passing the sound, I find that the womb runs to the right. I shall now have her removed.

Whenever you find a womb bound down like this one, with a cyst above it, with close attachments, in a woman fifty-three years old, it is well to consider the disease malignant. I do not feel at all disposed to plunge an aspirator into this cyst. I shall give her anodynes, if it is necessary, and wait developments. As I say, my opinion is

that this is malignant disease of some of the annexes of the womb. It may be of the broad ligament, or it may be in the adjacent tissues, or it may be in the womb itself, but I do not think so. I consider an exploratory incision would be unwarrantable under the circumstances.

EDITORIAL DEPARTMENT.

PERISCOPE.

Rupture of Uterus During Eighth Month of Gestation.

In the *St. Louis Medical and Surgical Journal*, Dr. Walter B. Dorsett records the following case:—

Mrs. A. C. B., colored; aged forty years; nativity, Virginia; occupation, washerwoman. First menstruated at the age of thirteen years, and continued to menstruate regularly all her life, except during her pregnancies. Had given birth to nine healthy children, all of whom were born at full term, and three years apart.

She was a well developed, muscular woman, and had always enjoyed good health. Menses stopped nine months prior to my visit, and she suffered no inconvenience from the condition except from violent movements of the child. She knew she "was in the family way, because she felt just like she did when she was carrying her other children." One evening, about six weeks ago, on coming home very tired, from a hard day's work, sat down to rest, and on jumping very suddenly to catch a little child who was running toward an open fire, she felt a violent pain in her abdomen. She said "it felt like the child stretching out." This was followed by a "giving way" sensation, "then as if a bird was fluttering in her abdomen." Feeling very faint and weak, she immediately went to bed and sent for a physician. The physician soon arrived, and upon examination, found that she was bleeding, and "told her she was in the 'family way,' and that the afterbirth was in front of the child" (he no doubt thought it was a case of placenta prævia threatened with miscarriage); he ordered some medicine to quiet her, then left and did not return.

She said she never felt the child move after this. Her abdomen began to enlarge gradually from this time until I paid my first visit. Though she felt very weak she frequently went about the room. During this time she was always annoyed by a slight vaginal discharge, which was very offensive.

Upon examination per vaginam, the external os could be easily felt; it was soft and patulous, and the neck seemed nearly obliterated. There was a slight moisture in the vagina, due to the presence of bloody mucus, which had a very offensive smell.

The uterus was quite movable and was not adherent to the surrounding tissues. There was

a general enlargement of the abdomen, and upon percussion, a very marked dullness, extending from the left iliac region, in an oblique direction, to within two inches of the lower border of the liver, having a general width of about two and one-half inches, could be easily detected. A hard tumor, about four inches in diameter, could be detected in the left iliac region. All other regions of the abdomen were quite tympanitic and very tender to the touch.

The sounds of a fetal heart, although carefully searched for, could not be heard. She was quite feeble and weak, and the pulse was very slow and easily compressed; heart-sounds somewhat muffled. As she was suffering a great deal of pain, I ordered the solution of morphia continued. I called regularly every day, but could discover no new symptoms, and she grew gradually weak till April 5th, when she died.

April 5th, a few hours after death, I made a post-mortem. The cavity of the abdomen was opened by a succession of careful incisions carried from the lower end of the sternum to the symphysis pubis.

The child's head was found resting upon the intestines, immediately below the stomach, the right arm drawn in a flexed position, with the elbow resting on the anterior surface of the womb; the head, neck and right arm being entirely outside of the cavity of the uterus. A rent in the fundus of the uterus still grasped the child around the left side of the neck and under the right arm. The smell of the escaping gas was so offensive that it was with difficulty that we could proceed. The child, as well as the uterus, was in such a decomposed condition that we could not remove them intact from the abdominal cavity. When the child was lifted up, the right foot was seen protruding through the internal os and engaged in the neck.

This was certainly a most interesting case, and could be none other than a rupture of the uterus during the eighth month of gestation, which did not prove fatal to the mother till the time arrived when she ought to have given birth to a matured child.

The cause of the rupture was very probably due to the violent muscular movements of the child, together with a weakened condition of the uterine walls, superinduced by her jumping up suddenly to catch the little three-year old child.

The child no doubt died shortly after its partial escape into the cavity of the abdomen, or when she felt the "giving way" sensation, and the fluttering sensation was its death struggles.

It was plainly shown by our post-mortem that there had been an effort on the part of the womb to expel its contents, from the fact that the foot was found engaged in the neck, but as the head and arm had been caught in the rent by the contracting fundus, it was impossible for it to accomplish its purpose, and labor ceased. Just at this time would it not have been eminently proper if the physician could have recognized her true condition and performed Cesarean section, and have at least tried to save the mother's life?

Physiological Activity of Super-oxidized Molecules.

Dr. Charles A. Cameron (*Lancet*) has experimented with the bromates and iodates, and has come to the conclusion that they are more active physiological agents than the corresponding iodides and bromides. The researches of Gamgee, Priestley, Larmuth and others have shown that unsaturated molecules have a higher physiological potency than saturated molecules, especially those containing the same kind of atoms. Carbon monoxide is more poisonous than carbon dioxide; the former has but two of the four bonds of its carbon atom saturated, while in carbon dioxide the four bonds of the carbon atom are saturated by the four bonds of the two oxygen atoms. The pyrophosphates and metaphosphates have unsaturated nuclei and are poisonous, while other phosphates which are saturated compounds are nearly inert, provided their bases are so. The author could not accept as established Rabuteau's theory, that the physiological activity of the elements was proportional to atomic weight.

The author considered that the high physiological activity of the bromates and iodates might be due to the super-oxidized condition of their molecules. The term super-oxidation is no doubt open to objection; but there is no better one to explain the condition of molecules containing more oxygen atoms than are necessary to saturate the bonds of the other atoms present in them. In potassium iodide we have a salt composed of two monad elements—K—I, and therefore, according to the doctrine of atomicity, it is a saturated compound. When four atoms of oxygen are added to K—I we have six oxygen bonds in excess of the number requisite to saturate the iodine and potassium.

More than a year ago he introduced two new compounds—namely, iodate of quinine and bromate of quinine. They have been so largely prescribed in Dublin that one firm alone, Messrs. Graham & Co., have sold more than a cwt. of the iodate, in the form of a granulated effervescent compound, each drachm of which contains two grains of iodate of quinine (a dose). The iodate has been found a valuable remedy in sciatica, severe articular pain which had resisted the action of the drugs which generally afford relief in rheumatic and gouty affections, malarious enlargement of the spleen, sluggish forms of pulmonary congestion, and in secondary syphilitic disease.

Iodate of quinine is prepared by neutralizing freshly precipitated quinine hydrate, with a solution of iodic acid in eight parts of water. The temperature may be raised to 100° F. Dried at

a temperature of 100°, it loses no further water by being kept in vacuo over sulphuric acid. It therefore, prepared in this way, contains no water combined. The mean of several analyses showed that it contained 22 per cent. of iodine; it is, therefore, composed of a molecule of iodic acid and one of quinine: $C_{20}H_{24}O_4N_2.HIO_3$. The theoretical proportion of iodine would be 22.92 per cent.; but the salt was faintly alkaline, showing that there was a trace of free quinine. The iodate dissolves in 700 parts of water, and is freely soluble in spirit of wine, less so in ether and alcohol. Hydrochloric, acetic, and most other acids dissolve it, forming colorless solutions. If strong sulphuric acid be allowed to drop on quinine bromate, a detonation occurs, a puff of black smoke is given off, and the compound is completely decomposed. On quinine iodate the strongest sulphuric acid produces merely a change from a white to a very light yellow color; and the addition of water forms a colorless solution. At 100° Centigrade, quinine iodate undergoes slight decomposition.

A brief reference to an iodate of quinine is made by Serullas, but of bromate of quinine no account could be found in the books or journals. It may be prepared by precipitating barium bromate by sulphate of quinine, and evaporating the solution separated from the barium sulphate, also by neutralizing bromic acid solution with quinine. It occurs in milky, minute needles, very soluble in water, spirit of wine, and dilute acids, except nitric acid. It is fully as active in its physiological effects as the iodate. It may be prescribed as a mixture, in pills, or in the granular effervescent mixture of the Pharmacopœia. It is soluble in 250 parts of water. Soon after the administration of the iodate of quinine, iodic and hydriodic acids appear in the urine. The quinine also appears, but arrives somewhat later.

The Iodoform Dressing in Vienna.

Dr. Roswell Park writes a very interesting communication on this subject to the *Annals of Anatomy and Surgery*. He says that Vienna was the scene of the first trials of iodoform, and Moosetig-Moorhof makes the statement that he has now treated about 7000 cases with the drug since he began to use it. These were cases of all grades of severity. In all this large number he had seen no case which exhibited any of the characteristic signs of the so-called iodoform intoxication. But Dr. Park adds that since this report, it is currently rumored that he nearly lost one case from this cause. His method of using it is based on a principle, and differs from that employed by most men who use it freely. He holds that since carbolic acid is eliminated by the kidneys, the elimination of iodoform by the same emunctories is prevented, if the carbolized spray or irrigations of carbolized water are used during, or even before the operation. He, therefore, uses nothing but clean water during the operation, and then applies iodoform, with full confidence that whatever amount may be absorbed can be readily removed by the kidneys. In the general hospital, Billroth, Albert, Dittel and Weinlecher have all settled down into about the same routine in using it. The part to be op-

erated upon is scrubbed with soap and carbolized water, and then carefully carbolized again. The operation is then performed. All the instruments and sponges are laid in carbolized water, and before dressing the wound is thoroughly irrigated with a 3 per cent. solution. It is then dressed with iodoform gauze. If advisable, the wound may be dusted with iodoform powder; in sub-periosteal amputations, it is dusted in many cases under the periosteum; in osteo plastic resections, between the ends of the bones, and after extirpation of tumors, many would sprinkle it upon the inner surface of the flaps. Under the influence of iodoform, there is much less suppuration, and whatever discharge takes place is more of the nature of a serous exudate.

An absolute indication for change of dressing is an elevation of temperature after it has been for several hours or days normal. Relative indications for the same are pain, and burning and itching in the part.

Iodoform ranks ahead of carbolic acid as an antiseptic, and it, undoubtedly, promotes absorption more rapidly than any other medicinal agent. For this reason it is largely used by syphilologists and dermatologists in Vienna, for hastening the subsidence of buboes and of scrofulous adenoid enlargements. They inject it in ethereal solutions. There is much room for doubting the anti-tuberculous properties which its introducer claimed for it. It undoubtedly promotes healthy granulation, but that it can change a tuberculous into a healthy process in any other way is hardly credible. Some systems are very tolerant of this drug. Gussenbauer, of Prague, after resecting an ankle, stuffed over eight ounces of iodoform into the wound without any bad result.

Whether iodoform thus filled into an open wound is any better than boracic acid is an open question. But there can be no doubt but that iodoform should become in America, as it is here, the antiseptic of the present and immediate future, for general use, until something better offers. As at present used here, in small quantities, it has caused no real trouble. Bearing in mind that no case has been reported of serious trouble following the use of not more than one hundred and fifty grains at one time, we may proceed, intelligently and fearlessly, though withal watchfully, to the most thorough and radical operations, confident that by the judicious use of this agent in our dressings we can accomplish all that surgical art can achieve, and at much less expense of money, time and labor, or pains; and even do all this better than it was done three years ago by the sole aid of carbolic acid. Surely the time is past when an American surgeon can be condemned for not using the spray.

Pemphigus Vulgaris.

June 21st of this year the Berlin Medical Society had a very interesting meeting, a report of which we find in the *Deutsche Med. Zeitung*, of June 29th. Dr. Schöeler presented a case of pemphigus vulgaris.

The patient, a girl, eight years old, well developed, and having enjoyed up to that time

very good health, was taken sick in August of last year. She complained of not feeling well, and had mild fever. Around the mouth and the lips slight swelling and redness appeared. A few days later vesicles of the size of a pea, and filled to tension with a clear, watery fluid, became visible. The same redness and swelling made their appearance on the elbows, the knees and ankles, and spread from there over the extremities and the trunk. The face was not excepted, neither were the eyelids. Whenever the vesicles had existed a few hours or a day, they either dried up and formed scabs or they burst, and the watery fluid oozed out. During the further progress of the disease this fluid assumed a dirty appearance, and some of the vesicles were, from the beginning, filled with a bloody serum. After a few weeks, and when the fever had ceased, the vesicles became continuously larger; at last they were of the size of a hen's egg, and appeared in such rapid succession that the whole back looked like a raw surface. After the discharge of their contents, or after the falling off of the scabs, the vesicles left no cicatrices, but red spots persisted for a long time, and on the sites of the vesicles filled with bloody serum pigmentary changes took place. Not only the skin, but the scalp and the mucous membranes also became gradually the seat of this eruption. Vesicles, or rather bullæ, formed in the mouth, in the rectum and in the vagina. Micturition and defecation were painful. But the general health of the child did not seem to suffer; nay, notwithstanding the little patient had to be confined to her bed from August to January of this year, she increased her weight by four pounds; which is the more remarkable as the child suffered from three to six times daily from epistaxis. During January a remission took place; the bullæ again became vesicles, and these smaller and smaller, and appeared at longer intervals; and for the last eight weeks only one little vesicle of the size of a split pea makes its appearance every few days. During the long illness her hair fell out in great quantity, and she lost her nails. And what is a rare occurrence, on the place of the old bullæ in the face and over the upper part of the body an immense number of miliary papules have developed.

About a week ago the patient had to be attended for an eye affection. The vesicles on the lids had also spread further and attacked the mucous membrane of the eye. During her whole illness the girl had, on account of the secretion and of the photophobia, not been able in the mornings to open her eyelids. Only a few days ago her mother had observed on the left eye a membrane stretched over it, from the canthus internus to the middle of the organ. On ectropiosis the eyelids a prominent cicatrix is observed on the left upper mucous membrane of the lid. The rest of the mucous membrane is shrunk up, and has lost its natural gloss. The right eye exhibits a similar picture. On the cornea one notes fine circular spots. The whole process may be compared to the appearance of conjunctivæ which for years have been cauterized most energetically.

The prognosis of this *pemphigus vulgaris* is rather doubtful, but considering the youth of the

patient and the fact of the vesicles having become so much smaller, fewer and rarer, it may be more favorable than is usually the case. Medical literature has only very few such cases on record.

Regarding the treatment, the eye physician, after cutting through the anchyloblepharon, has continued the measures adopted by the attending physician, viz.: Fowler's solution internally and aq. calcis externally.

Treatment of Fungous Arthritis.

The French pathologists apply the designation fungous arthritis to that form of chronic synovitis or arthritis in which the synovial membrane becomes white and sodden and the articular cartilages more or less eroded and disorganized. At a recent meeting of the Société de Chirurgie, M. Marc Sée presented a young girl who had tuberculous or fungous arthritis of both knee joints. After considerable treatment M. Sée decided to follow the practice of certain German surgeons who recommend injections containing iodoform for the destruction of tuberculous products in inflamed joints. He injected fifteen minims of a 20 per cent. solution of iodoform in ether into the left knee, which was most affected. The next day the knee was swollen, red and painful, but after a few days of perfect repose of the joint these symptoms disappeared, and after fifteen days there was notable amelioration in the condition of the joint. A second injection was made into the joint, with gratifying results, for the lateral immobility has at present disappeared, and the patient can use the limb in walking.

In the discussion which followed M. Desprès remarked that he had made iodized injection into joints in three cases; in one, of dry arthritis, the patient succumbing two years later to a cardiac affection, when the joint was found filled with pus, whether of recent formation or not he was unable to determine. In the two other cases excellent results were obtained.

M. Verneuil said that at a therapeutic point of view, distinction should be made between fungous masses of recent origin and those of old date. In the second place, at an anatomical point, these fungous masses may, according to M. Verneuil, be divided into three different varieties: 1st. Those which succeed to chronic rheumatic arthritis. 2d. Those which contain tuberculous follicles, constituting tuberculous synovitis. 3d. Those which are symptomatic of an adjacent bone disease. In practice, this distinction of varieties is of capital importance, for on it must be founded the course of treatment to follow.

Where the fungous masses are of tuberculous origin, cure cannot be obtained by ordinary therapeutic means; resection often proves insufficient, for there is more or less rapid relapse; in such cases it is very often found necessary to have recourse to radical measures, amputation often proving the only resource. Where, however, the fungous masses are of rheumatic origin, immobility, with iodized injections, succeed very well. The treatment is long, and anchylo-

sis generally the result; however, in some cases, the movements are regained.

Finally, when disease of adjacent bone is the cause, it will generally suffice to resect the diseased bone, and the fungous masses will disappear.

It has been recommended to excise and remove the entire synovial membrane, but this operation is very difficult, and what is more, unnecessary, for removal of the diseased bone generally induces disappearance of the fungous masses. So, then, according to M. Verneuil, the rules for practice in such cases would be as follows: 1st. No active intervention in fungous arthritis of rheumatic origin. 2d. Resection and, unfortunately too often, amputation, in cases of tuberculous nature.

Ringworm of the Scalp.

In the *British Medical Journal*, Dr. John Cavafy recommends the following procedure for the cure of ringworm of the scalp:—

Thinking that the accumulation of sebaceous matter and epithelial debris in all probability prevents the penetration of remedies into the follicles, which are further blocked by the swollen, diseased hairs, and that it should be our object to bring any parasiticide into contact with the most deeply seated fungus, it occurred to me that we might attain this end by the employment of a parasiticide held in solution in a fluid which should also dissolve fatty matters. It certainly seemed to me desirable to exclude fatty and oleaginous materials from the remedy, and to apply this in solution, i. e., the minutest form of subdivision. Accordingly, I determined to employ a solution of boracic acid, twenty grains in an ounce of spirit, to which a drachm of ether was added; and directed this lotion to be forcibly rubbed into the affected parts of the scalp, with a rag or moderately stiff brush, three times daily, the whole head being ordered to be washed every morning with plenty of hot water and soap.

The result of this treatment in severe chronic uninfamed cases is certainly excellent, when it is faithfully carried out. The frosted, scaly aspect of the diseased patches is soon replaced by healthy-looking scalp; the broken and twisted hairs appear to be removed, and a healthy growth makes its appearance. When the scalp is seen shortly after the application of the remedy, it is found to be shining, owing to the presence of a fine glaze. This, I presume, consists of dissolved sebaceous matter mixed with boracic acid, deposited in a thin film after evaporation of the solvent; and for this reason I think its removal by soap and water is a necessary adjunct to the treatment. This would, perhaps, be best effected by alkaline spirit of soft soap, which, however, I have not used.

Now, will this treatment suffice to cure chronic uninfamed ringworm? I should hesitate to say. I have certainly seen many cases in which the disease appears to have been entirely removed; but (there is always a "but" in the treatment of ringworm) I must admit the possibility of a diseased stump or two having remained. I find it an extremely difficult matter to be quite certain that every hair is healthy on a scalp which has

once been affected with ringworm, and in this I believe my experience is not singular. I have had cases which seemed cured brought back to me on a future occasion with distinct ringworm; and it is, no doubt, possible that this may have started from an old, undetected, excessively minute focus. But, with our very imperfect means of observation of hospital outpatients, it seems equally possible that such cases may be due to reinfection, either from other children in the same family or from a new source.

I may say, in conclusion, that Professor Kaposi (*Hautkrankheiten*, ed. i, p. 740) recommends, among other remedies, the application of alcoholic and ethereal solutions of carbolic and salicylic acids. These would, no doubt, do very well; but the entire absence of any irritation by the use of boracic acid seems to me in its favor, while its efficacy as a parasiticide is unquestionable. The remedy may be, no doubt, varied in different cases; but, if our object is that it should penetrate into the hair follicles, I certainly think that it should be employed in solution, and forcibly rubbed in, and that the use of an oily or fatty vehicle is to be deprecated.

Static Electricity as a Therapeutic Agent.

At a recent meeting of the New York Academy of Medicine (*Boston Med. and Surg. Jour.*) Dr. J. Knight read a paper on this subject. The author stated that he had had a personal experience with static electricity, of fifty years. He related a case of wrist-drop which he had cured in two weeks by its application from the shoulder to the phalanges. Very frequently, on account of unfavorable atmospheric conditions, he had been compelled to resort to dynamic electricity as a substitute. But he has now obtained an instrument (Holt's induction machine) by which static electricity can be generated in any quantity at almost any season of the year. Static electricity differs in its effects from dynamic, and is more widely applicable as a therapeutic agent. It is not only an excitant but a sedative as well, while dynamic electricity acts merely as an excitant. He believes that static electricity coöperates with vitality, and this is always to be regarded as the central idea in connection with electricity. In the second place, it has great re-active power. This is so intense that the nervous system will respond to electricity when all other stimulants have failed to excite it. It is likewise an alterant, changing the action of an organ by improving its general tone, and it promotes nutrition. As a general rule it is better to have the current feeble rather than strong, and it is advisable to repeat it at frequent intervals, applying it at each sitting for a considerable time continuously. Golding Bird stated in 1846 that static electricity ought not to be used in confirmed organic trouble, as in such cases it was likely to bring on fatal apoplexy. Dr. Knight does not hesitate to use it in such cases in his own practice, but he believes that venesection, in addition, is essential, to avoid the dangers referred to. He has found it especially useful in various forms of paralysis of the hand and forearm, and in not a single case of this kind has it

failed to afford relief. In rheumatic paralysis or wasting of muscles he has found it very useful, and in only two out of ten such cases has it failed in his hands. He places the patient on an insulated stool and applies the electricity from the upper cervical vertebrae to the extremities, drawing it off by means of metallic points. In conclusion, he gives a warning as to the abuse of the agent, and says that he has seen patients who have been irrecoverably injured by this as well as by dynamic electricity. If a tendency to apoplexy is noticed during its employment, hydragogue cathartics will generally suffice to remove it; but, as already mentioned, it will be necessary in some cases to resort to venesection. Dr. Dana had obtained excellent results in two cases of constipation, where galvanism and other agents had failed. Dr. William Morton is of opinion that the electricity should be used in large quantity, and should be applied, as far as possible, directly to the spot affected, as he does not believe it to have any general effect upon the system at large. He considers it to be almost a specific in hysteria. Many cases of spinal anaemia, with emotional disturbances, hemianesthesia and other similar manifestations, will yield beautifully to free applications of static electricity to the spine. Dr. Rockwell considers static electricity very valuable, but does not believe it to possess more merit than some of the other forms. In a number of instances he has noticed that after a time the improvement which had at first taken place under the use of various forms of electricity ceased, and in these cases the static form can be resorted to with very good results.

An Apparatus for the Administration of Ether.

Dr. J. C. Hutchinson recently presented to the Medical Society of the County of Kings (*Proceedings of the Society*) an ether inhaler, which he describes as follows:—

A tin tube for holding a sponge for the ether, three and a quarter inches long and two and a quarter inches in diameter; one end is left open, to be covered by a muslin bag, the other is closed, with the exception of an opening at its upper part, one inch in diameter, into which is inverted a tube for attaching a rubber hood. This tube projects backward three-fourths of an inch, and is then carried downward, at a right angle, to a level with the lower margin of the sponge tube. This arrangement prevents the liquid ether from running down upon the patient's face or mouth. There is an opening in the centre of the top of the large tube, one inch in diameter, having a neck half an inch long, which is closed by a cork; through this opening the ether is poured upon the sponge without removing the mask from the patient's face. A rubber hood, such as is used in giving nitrous oxide gas, fits accurately over the mouth and nose, and may be so adapted to any face as to completely exclude the air. The neck of a muslin bag, pear-shaped, eleven inches long, and eight or nine inches wide at its widest part, fits closely over the open end of the sponge tube, and has a slit an inch and a half long at its mouth, to the corners of which tapes are attached, for the purpose of tying it tightly around the

opening through which the ether is poured, so as to prevent the entrance of air at this place. The bag should be made of close material, and when it is wet with water, it is impervious, or nearly so, to air or ether vapor.

Mode of Using the Inhaler.—When about to be used, the large tube is filled with a piece of coarse sponge, of proper size and shape, which has been previously wet with water and thoroughly squeezed. The bag is then wet and squeezed, so that it does not drip, and secured over the mouth of the tube. The sponge will hold two ounces of ether, which should be poured upon it through the opening on the top of the tube containing the sponge. In most operations the first charge of ether is all that is required, and in many, half the quantity mentioned is quite sufficient. The rubber hood is applied accurately over the mouth and nose, but the opening through which the anæsthetic is poured is left uncorked until tolerance or partial anæsthesia of the mucous membrane of the air passages is established, as indicated by deep inspirations. Free dilution of the ether vapor with atmospheric air when its administration is first begun, prevents, in a measure, the coughing and strangling that is liable to occur from the sudden application of the concentrated vapor.

The bag ordinarily lies upon the upper part of the chest, but in operations about the neck and upper part of the body, it may be placed to one side or the other, or upward over the face, by turning the sponge-holder on the rubber hood, the latter retaining its position.

The Advantages of the Inhaler.—The advantages which the writer believes this apparatus possesses are:—

1st. The mechanical act of respiration is entirely free—"the lower end of the bag rises and falls with the respiration, without offering any practical obstruction to the mechanical process" (Squibb), and the breathing can be closely watched.

2d. No part of the instrument is liable to become soiled by expectorated or vomited matters, except the rubber hood, and this is easily cleaned—an advantage of no small importance for the antiseptic days. But it is better to throw the whole apparatus into a basin of water after each inhalation, to free the products of respiration. No inhaler should be used a second time without being thoroughly cleansed.

3d. The apparatus economizes ether, the first charge (two ounces) being usually sufficient for a long operation; it prevents, in a great measure, the vapor from permeating the apartment, and affecting the comfort of the operator and his assistants, and especially the anæsthetizer, who often suffers from inhaling a large quantity of the vapor himself.

4th. It is simple in its construction, having no valves, and is inexpensive and portable.

The apparatus, together with a bottle or tin can containing four or six ounces of ether, may be carried in a tin case 9 inches long and 3½ inches in diameter, divided by a diaphragm in the middle—one side of the case for the ether bottle and rubber hood, and the other for the tin tube (the sponge being placed inside of it) and the bag.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—In a reprint from the *Alienist and Neurologist*, Dr. C. H. Hughes, of St. Louis, gives an interesting note on the essential psychic signs of general functional neurasthenia.

—Dr. Thad. M. Stevens, of Indianapolis, has cogently shown, in a recent reprint, the need of hospitals in Indiana, constructed and controlled by State authority.

—The class work of the pupils of the Illinois Asylum for feeble minded children is given in a brief pamphlet, and presents a gratifying exhibit of improved intelligence.

—Catarrhal affections are so common that Dr. William Pepper's address upon them (reprint from the *Trans. of the Am. Med. Assoc.*) cannot but be welcome to very many readers.

—An interesting sketch of recent advances in the Specialty of Ophthalmology is presented in a recent reprint by Dr. Julian J. Chisholm, of Baltimore. He considers one of the most important questions of the day in this branch is, How to prevent children from becoming near-sighted.

—In a pamphlet of 134 pages, entitled "Contributions to Practical Gynecology," Dr. S. James Donaldson discusses the treatment of uterine deflexions and dysmenorrhœa. He differs widely from Dr. Sims and his school, in the theory and therapeutics of dysmenorrhœa, and contends that much harm has been done by their teaching. A number of valuable suggestions will be found in the work. (For sale by J. H. Vail & Co., 21 Astor Place, N. Y.)

—The statistics of insanity have a valuable addition in the Fourteenth Report of the Inebriates' Home, Fort Hamilton, N. Y., by Dr. Lewis D. Mason. It presents a careful analysis of 600 cases of alcoholic inebriety. One warning it conveys deserves to be prominently emphasized: "The principal hereditary cause of inebriety is an inebriate father or mother; these records show an inebriate father in 209 of the above 600 cases." The address of the President, Dr. Theodore L. Mason, is in support of the opinion that inebriety is a disease.

—Another severe criticism of the surgical treatment of the late President Garfield comes from the pen of Dr. R. H. Day, of Baton Rouge,

La. (reprint from *New Orleans Medical and Surgical Journal*). The result of his study of the case—and it is a candid and intelligent study—may be given in his own words:—

"I cannot avoid the conclusion that, if the right line of surgical procedure had been adopted at the start, such as I have indicated, and such as is taught and practiced by the most eminent surgeons in every country, those very serious complications which took place during the progress of the case, such as large pus-sacs and long pus channels, might not have occurred; and hence no septicæmia to poison the blood, break down the vital forces, and arrest those efforts at reparation which nature had most evidently commenced. Then, as a logical and pathological fact, the death of the President was not an inevitable but an incidental result of his wound."

—In order to determine the propriety of bronchotomy in cases of foreign bodies in the air passages, Dr. J. R. Weist, of Richmond, Ind., has made an analysis of 1000 cases (reprint from the *American Practitioner*). His conclusions are as follows:—

1. When a foreign body is lodged either in the larynx, trachea or bronchia, the use of emetics, erethines or similar means should not be employed, as they increase the sufferings of the patient and do not increase his chances of recovery.

2. Inversion of the body and succussion are dangerous, and should not be practiced unless the windpipe has been previously opened.

3. The presence simply of a foreign body in the larynx, trachea or bronchia does not make bronchotomy necessary.

4. While a foreign body causes no dangerous symptoms bronchotomy should not be performed.

5. While a foreign body remains fixed in the trachea or bronchia, as a general rule, bronchotomy should not be practiced.

6. When symptoms of suffocation are present, or occur at frequent intervals, bronchotomy should be resorted to without delay.

7. When the foreign body is lodged in the larynx, there being no paroxysms of strangulation, but an increasing difficulty of respiration from œdema or inflammation, bronchotomy is demanded.

8. When the foreign body is movable in the trachea, and excites frequent attacks of strangulation, bronchotomy should be performed.

BOOK NOTICES.

Two Hard Cases; Sketches from a Physician's Portfolio. By W. W. Godding, M.D. Boston: Houghton Mifflin & Co. 1882. 1 vol., cloth. 12 mo. pp. 257. Price \$1.00.

The two hard cases are a young man who committed suicide in the Taunton, Mass., asylum, and Guiteau. As 224 out of the 257 pages

are devoted to the latter, the insertion of the other "hard case" is apparently only thrown in to make weight. Nor has it much similarity with that of Guiteau. The writer believes the famous assassin was a lunatic, and criticises at great length the testimony of the experts for the government.

A Rational Materialistic Definition of Insanity and

Imbecility, with the Medical Jurisprudence of Legal Criminality founded upon Physiological, Psychological and Clinical Observations. By Henry Howard, M.R.C.S. Montreal: Dawson Bros. 1882. pp. 145.

Dr. Howard argues, from first to last, that animal mind is a product of organic matter; that, therefore, insanity is a physical disease; that there is no such thing as "functional insanity." Much of his argument is illustrated from some well known recent cases, in which he was called as expert witness. He enters to some extent into the best plans of managing convicts, and his suggestions certainly merit attentive consideration. He is also justly severe in his criticism of the common method of employing untrained and often ignorant men to decide on grave criminal charges. In fact, there are a great many thoughts in the volume that cannot but impress the reader.

The Change of Life in Health and Disease. By

Edward John Tilt, M.D. Philadelphia: P. Blakiston, Son & Co. 1882. 8vo. pp. 184.

The day of cheap medical books seems to have dawned upon us. This is one of Messrs. Blakiston, Son & Co.'s "New Octavo Series of Standard Medical Books," sold in paper at 75 cts., cloth \$1.25 each. Each book is sold separately, so that the purchaser of one good book, that he wants, is not obliged to carry a cartload of dead wood in the shape of uninteresting or third-rate volumes of the series, as is the case with some other series of "Standard Medical Works."

Of course, most books in all such series, where the main point is cheapness, are old, and reprints from English publications, more or less trimmed down. It is safe to say, however, that the reader will surely get his 75 cents' worth if he reads any one of the volumes with care and judgment.

Dr. Tilt, for instance, the author of the volume before us, is a peculiarly pleasant writer and a sagacious gynecologist. His subject is a comparatively unhackneyed one, and his suggestions are sensible and shrewd. What he writes both pleases and instructs.

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HEALTH OF THE TROPICS.

What we lately said about the effects of high summer temperature on the health may further be illustrated geographically by the tropics. It is a prevailing opinion that these are generally unhealthy. Such is not the case, or, when it is so, the causes of the excessive mortality are patent and preventable.

It is not fair to take, for example, the mortality of Madras, which in some weeks runs up to one hundred per thousand per year, and point to it as a result of temperature. In fact, it is the result of starvation, neglect and recklessness.

The highest average temperature in the world is found near the southern extremity of the Red Sea. Yet the medical officers of the English Abyssinian expedition report that the natives of that region are vigorous and long-lived. The virility of the old men was particularly noticeable. It was not at all uncommon for them, when over seventy, to have numerous children. As their wives were strictly secluded, the paternity was indisputable.

Much has been said lately about the unhealthiness of Panama, and the mortality attending the great work of M. DE LESSEPS there in progress. But these accounts have been vastly exaggerated. We are acquainted with gentlemen who have spent years in Panama, and they consider the climate quite salubrious to those who become acclimated.

Within the last week we have spoken with a distinguished scientist who has just returned from a scientific mission to Darien and Panama, and he pronounces the reports about the excessive sickness among the canal employees to be false. Most of the workmen are from the neighboring parts of the tropics, and bear the climate well.

As to the asserted inability of natives of the tropics to bear severe labor, it is completely refuted by the history of civilization. The greatest works of man on both continents have been in tropical or sub-tropical climes. Civilization had its birth in Mesopotamia and Egypt, where the climate is extremely hot, and again in Yucatan and Peru, the one directly under the equator, the other enjoying a warmth which varies from 70° to 110° in the shade.

It is true that a race long accustomed to the bracing air of a northern winter loses somewhat when it is translated to a land of perpetual summer. Much of this, however, is owing to carrying the habits of the cool into the warm latitudes. When such emigrants adopt the clothing, food, and habits of the land to which they go, they suffer much less.

Two potent reasons why modern races have less energy under great heats, are unquestionably, alcohol and tobacco. Both of these profoundly impair the nerve force, and tend to diminish the resistance of the body to extremes of temperature. One able observer attributes the deterioration of the European natives of the tropics principally to the use of tobacco, and his suggestion has much to support it. It is only since these two agents, and especially tobacco, have been widely used, that the vigor of tropical nations has markedly diminished.

TRUE DISINFECTANTS.

Many a so-called disinfectant is employed to-day in a certain solution, when it does not possess any value whatever, under the circumstances. If it is really our intention to disinfect wounds, we must be certain, at least, that we will achieve our object with the remedy we use; if such is not the case, we only irritate without doing good.

The Imperial Board of Health in Berlin has published a number of experiments which have been made by Dr. R. KOCH, with the view of establishing the real value of many so-called disinfectants. It would lead us too far to give the whole procedure employed to ascertain the facts mentioned, and we will, therefore, confine ourselves to giving the more important results of the investigations of this celebrated physician.

Most surgeons have been satisfied to wash their hands and to clean their instruments with a two per cent. solution of carbolic acid. Such a solution is almost inert, and a five per cent. solution is necessary to achieve the desired object.

But what is the most interesting is the fact that *carbolic acid dissolved in oil or water proved itself totally inert!* What do our surgeons who still make use of so-called carbolized oil say to that? KOCH found that carbolic acid, when dissolved in oil or in alcohol, had not the slightest influence on the vitality of any of the micrococci or bacilli.

Concerning sulphurous acid, it was found to be powerless against spores; bacilli and micrococci, when exposed to the fumes in a box, were killed within twenty minutes, but were very little influenced, or not all, when exposed to the fumes in a room at the usual temperature.

Chloride of zinc showed itself just as harmless. A five per cent. solution exerted absolutely no influence on the spores of anthrax, notwithstanding the same had been exposed to the action of the remedy for a period of thirty days.

Of other drugs, the spores of the bacilli were killed by chlorine water, fresh prepared; two per cent. bromine water, one per cent. aqueous solution of corrosive sublimate, five per cent. solution of permanganate of potassium, one per

cent. osmic acid, within one day; formic acid, four days; ol. terebinth, five days; solution of chloride of iron, four days; one per cent. arsenious acid, one per cent. quinine (water with muriatic acid), two per cent. muriatic acid, within ten days; ether within thirty days.

Inert or possessing very little influence: distilled water, alcohol, glycerin, oil, sulphur-carbon, chloroform, benzol, petroleum-ether, ammonia, concentrated solution of common salt, bromide and iodide of potassium, 1 per cent. sulphuric acid, sulphate of zinc and copper, alum, 1 per cent. permang. of potash, chromic acid, the chromates and bichromates, chlorate of potash 5 per cent.; boracic acid 5 per cent.; acetic acid 5 per cent.; tannic acid 5 per cent.; benzoate of sodium 5 per cent.; quinine (2 per cent. in water 40, alcohol 60), iodine (1 per cent. in alcohol), thymol (5 per cent. in alcohol), salicylic acid (5 per cent. in alcohol, 2 per cent. in oil).

As regards remedies which prevent the further development of spores, the following results were obtained. The first number means retarding the development, the rest totally preventing it:

Corrosive sublimate,	1 : 1,600,000	1 : 320,000
Oil of sinapis,	1 : 330,000	1 : 33,000
Arsenite of potash,	1 : 100,000	1 : 10,000
Thymol,	1 : 80,000	
Ol. terebinth,	1 : 75,000	
Hydrocyanic acid,	1 : 40,000	1 : 8,000
Oil of peppermint,	1 : 33,000	
Chromic acid,	1 : 10,000	1 : 5,000
Pieric acid,	1 : 10,000	1 : 5,000
Iodine,	1 : 5,000	
Salicylic acid,	1 : 3,300	1 : 1,500
Permang. of pot.,	1 : 3,000	
Muriatic acid,	1 : 2,500	1 : 1,700
Camphor,	1 : 2,500	
Eucalyptol,	1 : 2,500	
Benzoic acid,	1 : 2,000	
Borax,	1 : 2,000	1 : 700
Carbolic acid,	1 : 1,250	1 : 300

But as, for purposes of disinfection, the micro-organisms must be killed, and in the shortest possible period, and the effect of retarding the development of the spores (antiseptic) is not sufficient, only the following remedies can, according to KOCH's experiments, be said to be of value: corrosive sublimate, chlorine, bromine, iodine. Bromine in form of vapor is, as concerns rapidity of action, superior to chlorine and iodine.

NOTES AND COMMENTS.

Sulphuretted Hydrogen as a Remedy for Tuberculosis.

Dr. Froschauer has published a number of successful experiments which he made with sulphuretted hydrogen on animals, as a remedy against septicæmia. In connection with this, Prof. Arnaldo Cantani (Neapol.) has written to the *Centralbl. f. Med. Wissensch.*, No. 16, 1882, and mentioned that among other experiments he made with disinfectants, to find out their value as curative remedies in tuberculosis, he has instituted also a number of observations with sulphuretted hydrogen. This is given to the patients internally, in the form of water impregnated with the gas. Besides, the patients are kept for a long time in a room the air of which is loaded with the gas, which the patients inhale. The first few days the latter object somewhat to this method, the odor evidently not being very agreeable to them, but in a short time they become accustomed to it, and as they feel the decided benefit they gain by this procedure, willingly continue it.

These observations are not concluded as yet, but Cantani is satisfied that, so far, the following results have been achieved:—

The fever disappears within a few days, and does not return as long as the inhalations are continued. The same is the case with the chilly sensation and the night-sweats, which usually cease. The local morbid process does not make any further progress, and is undoubtedly arrested for the time being. The expectoration diminishes decidedly in quantity.

Cantani intends to continue these experiments, and will not fail to report any further results.

Skin Eruptions in Locomotor Ataxia.

Charcot, Velpian and others have observed the presence of skin eruptions (papulæ, maculæ, etc.), in cases of sclerosis of the posterior columns. These eruptions have been found to be in intimate connection with the lancinating pains of tabes. J. Strauss ("Des ecchymoses tabétiques, à la suite des crises de douleurs fulgurantes," *Arch. de Neurologie, etc.*, 1881, No. iv), has now noted ecchymoses in the skin appearing in tabes after the paroxysmal pains. From a description in the *Centralbl. f. d. Medic. Wissensch.*, 1882, No. 16, we take the following:—

These ecchymoses show themselves only after the attacks are over, and they resemble the spots which result when the skin is pinched severely;

they have an irregular, round shape, and their size varies from that of a split pea to that of a silver half dollar. There are, usually, several (3-4) spots in one extremity. They are painless, and are observed only after a very severe attack of pain, and according to the nature of the latter the spots are one- or double-sided. The spots are mostly to be found above the seat of the pain, and differ from Charcot's skin eruptions by not following the course of the nerve. Exceptionally, they appear on the extremity which is not the seat of the pain. Strauss considers these spots as rather frequent in locomotor ataxia, and brings them in direct connection with the morbid alteration of the posterior columns of the spinal cord. He thinks that they are reflex phenomena (irritation of the vasodilators). This seems possible, if we remember the hemorrhages which have often been observed in cases of tabes after gastric and rectal crises (paroxysms of intense pains beginning either in the stomach or in the rectum).

Artificial Alimentation in Nervous Vomiting.

M. Gilbert Ballet, in a recent number of *Le Progrès Medical* (June 17th), gives the full observation of two cases occurring in M. Charcot's service at the Salpêtrière. Both patients were hysterical, one very much so; there was almost complete intolerance of the stomach, every species of food and drink being vomited. Both patients, on entering the service, were placed on an exclusive milk diet, but without beneficial result, as the milk was constantly and very rapidly ejected from the stomach. Then a simple tube of soft rubber (tube de Faucher) was passed into the stomach, and one quart of milk injected; it was retained but a short time. The next day but a pint at one time was injected, and retained, and from that time milk was thus constantly introduced into the stomach and retained. This species of alimentation was continued for about fifteen days, about two or three quarts of milk being introduced daily, with four eggs beaten up and a spoonful of beef essence. After these fifteen days the first patient had gained eight pounds in weight and was able to eat without the tube. The results were equally good in the other case.

This method of artificial or forced alimentation, which is at present attracting considerable attention in the French capital, was first principally experimented by M. Debove, in phthisical patients who had fallen almost into a state of marasmus and were unable to retain any species

of food on the stomach. In such cases it gave unhopcd-for results, and though it is not so constantly beneficial in incoercible nervous vomiting, it has in many cases given excellent results.

Anosmia.

In the *Lancet*, Dr. E. H. Jacob says that the total loss of smell is so uncommon, and its recovery so very rare, that the notes of the following case possess interest. A woman, aged forty-five years, fell from a stool, striking the back of her head. Ever since (some years) she has been absolutely without the sense of smell. She did not complain of pain, but was nervous, weak and excitable. Iodide of potassium, fifteen grains three times daily, was ordered. In a week she said that her head was clearer, but the sense of smell was not improved. Subsequently a constant current, gradually increased to the highest bearable extent (about twenty cells), was passed from the mastoid process to the nasal bones, for five minutes on either side. This process was subsequently repeated four or five times, and while the sense of smell was not entirely restored, it was very much improved.

Sulphurous Acid in Typhoid Fever.

Dr. J. Burney Yeo says, in the *Practitioner*, that, his attention having been directed, by some medical friends, to the value of sulphurous acid in typhoid fever, he decided to give it a trial. The first two cases in which he used it progressed favorably to recovery, but they were of a very mild type. Finally a severe case presented itself. On the morning of the fourth day of the fever the sulphurous acid was commenced, in half drachm doses every four hours, and continued uninterruptedly for twenty days. The temperature ranged between between 102° and 104°, the evening temperature on the ninth day being 103.6°. On the tenth day there was a notable fall of temperature. It did not rise above 102° during the tenth, eleventh and twelfth days. On the thirteenth day there was another fall, the evening temperature being 101.2°, and for the next six days the evening temperature only reached on one occasion 101°. From the ninth to the nineteenth he seemed to be doing well. On the latter day he complained of abdominal tenderness. On the twentieth day the temperature began to rise again, and continued to rise gradually till the evening of the twenty-second day, when it was 103.8°. It kept at this point, but with wider oscillations than before, until the twenty-

eighth day, when it reached 104.2°, the highest recorded. He died suddenly on the evening of the twenty-ninth day, with symptoms of perforation. The author concludes from this case that sulphurous acid seems to be a remedy of some value as an antipyretic in cases of typhoid, and considers it worthy of note that in this case, notwithstanding the extent and gravity of the intestinal ulcerations discovered post-mortem, the temperature was never very high, only twice reaching 104°. This remedy must be given further trial before we decide on its merits.

Hypodermic Application of Purgatives.

After L. Lewin and Kohn had published a number of observations concerning the action of certain purgatives, if employed by the hypodermic method, A. Hiller, in Berlin, made some experiments, which he reported last month in the *Zeitschr. f. Kl. Med.*, iv, 40.

The remedy mostly recommended for this purpose is *aloin*. Hiller observed, after injecting 0.15 to 0.2 grams of the remedy, a copious and soft discharge within four to six hours. But the action depends much upon the preparation of the remedy.

Colocynthinum purum (prepared by Merck, in Darmstadt, a grayish yellow powder) produced, in the dose of five to ten mgrm., watery stools with slight bellyache. A solution is made with water, glycerine and alcohol, but the injection is very painful. Just as painful are the injections made by a similar solution of *citrullin*, dose 0.005-0.01.

The same can be said of *acidum catharticum* (made from senna), dose 0.2 to 0.3.

We may conclude, therefore, that these injections produce too much pain, while *aloin*, which does not cause this inconvenience, is very unreliable.

Ammoniated Mercurial Peptones.

M. Martineau recently read a new memoir before the Soc. Médic. des Hôpitaux, on the treatment of syphilis by the hypodermic injection of these prepared peptones. It may be said that this method of treatment is at present used in many hospitals, but has not yet received sufficient attention in private practice. M. Martineau has treated 600 patients in this way, and made 11,000 injections. He regards the method as almost perfect, without contra-indications or accidents of any description. He has observed neither phlegmon, abscess, or eschar, even among diabetic patients. Salivation and mercurial

stomatitis or gastric and intestinal troubles are infrequent.

This method has a more efficacious action, and is more rapid and energetic than other forms of treatment. Under its influence the bodily weight increases and the number of globules multiply. Finally, considering the rapid beneficial effects of the treatment, its value at a financial point of view should recommend its introduction into civil and military hospitals.

According to M. Martineau, it invariably diminishes the sojourn of the patient in the hospital, and as from 3000 to 4000 soldiers are constantly under treatment for these disorders in the military hospitals, the saving in time and money would be very great.

Dried Blood.

In the *Société de Biologie* (June 3, 1882), Regnard reported the result of his experiments, by which he intends to demonstrate the value of boiled and dried blood as an aliment. He had selected sheep for this purpose. Of six sheep he gave to three this powdered blood in addition to a certain quantity of their usual vegetable food, and to the other three the latter alone. The last three died; the first developed themselves splendidly. Should this good success continue the result will be of importance, as the immense quantity of blood, which in slaughtering establishments is now only a product of waste, will become useful, and a valuable article of commerce, providing a cheaper food for certain animals. Regnard obtained also favorable results in a rachitic child, eighteen months old.

It would be well for our Commissioner of Agriculture to aid experiments of such kinds. They would be of far more benefit for all than many of the fancy experiments, for which too often large amounts of money are thrown away.

A Common Mistake Concerning Chloride of Potassium.

It is well known that chlorate of potassium is a very good remedy to gargle the throat, but comparatively few physicians are aware of the fact that it is not this remedy which is so successful in mercurial stomatitis, but chloride of potassium.

Prof. Wertheim draws the attention of physicians especially to this fact (*Wiener Med. Blätter*, 15, 1882). He reminds them that the formula of the first is, $KClO_3$, but that of the second KCl. He says that the chlorate should never be used, as in concentrated solution it may even

prove very harmful; while the chloride is very innocent; a specific in sore throat, and especially in mercurial sore mouth, and very analogous to common salt, which is simply a chloride of sodium, instead of potassium. In America the chlorate is commonly used; no wonder, therefore, that it is not found here as efficient as in France and Germany, where they use the chloride.

Sugar in Pleuritic Effusions.

H. Eichhorst (*Zeitschr., f. Klin. Med.*, iii, p. 537) observed, in the serous effusion of a case of pleurisy, notwithstanding the absence of sugar, that the latter formed very soon. He examined, therefore, seventeen cases of serous exudation, with particular care; in all these cases the fluid was withdrawn with the aid of a Pravaz' syringe, and immediately analyzed. Of these seventeen cases the effusion contained, in ten cases, sugar; two were free of sugar and of ferment. The presence of sugar seemed to exclude the presence of the sugar-forming substance, which was found, however, in the others. The ferment, which was detected in two cases, had the peculiarity not to be destroyed by boiling. To examine for the sugar-forming substance, the exudation was boiled, with the addition of sulphate of sodium. When cold the addition of a solution of iodine and iodide of potassium produced a blue-violet color.

Isolation in the Paris Maternity.

M. Tarnier, in a letter recently addressed to the Soc. Médic. des Hôpitaux, recalls the very extraordinary results obtained by isolation, the use of antiseptics, and all means proper to ward off contagion. In the new pavilion he has had constructed, in which each chamber can only be entered by a separate door opening outwardly, without any aperture toward the hospital except a single large pane of glass let into the wall, permitting the surveillance of the patients, he has had but six deaths in 1200 cases of labor. Within the past few years even there have been 600 cases without a single death. No statistics ever published have shown such favorable results as these of M. Tarnier.

Opening of the Chest in Hydatid Cyst of the Lung.

At a recent meeting of the Soc. Médicale des Hôpitaux (June 23) M. Bucquoy presented a remarkable case of hydatid cyst of the lung, treated and cured by incision of the chest wall.

A man of 39 years of age presented himself, with the signs of dry pleuritis on the right side;

later the general condition became bad, and all the signs of pneumothorax were found.

By aspiration, more than two quarts of pus were withdrawn from the chest, but no improvement followed; hectic fever appeared, with fetid breath, discharge of pus from the mouth, and a second aspiration gave but about three ounces of very fetid pus.

An incision in the chest wall was then made, and the hydatid cyst extracted; rapid recovery ensued, a fistulous passage into the chest remaining.

Nasal Polypi and Asthmatic Attacks.

M. Joal, in an interesting memoir published in the *Archives Générales*, calls attention to an unrecognized cause of asthmatic attacks. Trousseau and Gueneau de Mussy had already insisted on the causative relations existing between certain forms of coryza and asthma. The author of this memoir mentions eleven cases observed by himself, where the asthmatic attacks disappeared soon after the removal of nasal polypi; in several cases the attacks reappeared when the polypi had again regained their former size. The author remarked that these patients were in general subject to arthritic manifestations, and that it was only in certain exceptional cases that the nasal polypi provoked respiratory derangement. The author is of opinion that the polypi in such cases cause irritation of the nasal mucous membrane, inducing thus, by reflex action, a spasm of the muscles controlling respiration.

Micrococci of Lupus.

Dr. M. Schüller has been able to detect in the smaller papule of lupus micrococci. They are observed in the larger papules too, but it is difficult to find them there. They were never absent in the sebaceous glands in the region attacked by the disease. This fact would seem to explain the good results which have been gained by the local application of pure carbolic acid.

Neuralgia of the Trigemini Cured by Amputation of the Vaginal Portion.

In the *Centralbl. f. d. Medic. Wissensch.*, 1882, No. 16, we find the following interesting case reported: Dr. J. Holst (*Petersb. Med. Wochenschrift*, 1882, 1) had a patient who, after having taken a cold bath during her menstruation, was attacked by dysmenorrhœa, which was cured by a course of bathing at Kissingen. But soon a very severe right-sided neuralgia of the trigemini (2d and 3d branch) made its appearance, which

exacerbated decidedly during each menstrual period. Life became a burden to her. Holst found the vaginal portion swollen and indurated; there was endometritis colli follicularis. He amputated the neck and the neuralgia disappeared; the first menstruation after the operation was still a little painful, but the next was free from pain. All dysmenorrhœa and neuralgia have since ceased, and the patient enjoys splendid health.

Resection of the Stomach.

The *Allg. Med. Central Zeit.* reports, under April 19th, from Bamberg, that the physician-in-chief of the surgical division of the city hospital, Dr. Nebinger, performed resection of the stomach on a patient over forty years of age. The cause was cancer. The patient, who on April 4th, was able to take solid nourishment again, is doing very well, and there is every hope that he will fully recover from this dangerous operation. It is doubtful, however, if the malignant growth will not return.

Paralysis After Extraction of a Tooth.

F. H. Balkwill, D.D., of Plymouth, extracted, a short time ago, a lower molar tooth for a young man. After the extraction the patient complained of numbness of the skin over the chin. Later, this sensation changed to one of pricking needles. The anæsthesia reached from the median line of the lower lip and the chin to a little over the region of the foramen mentale. About a month later normal sensation returned.

The extracted tooth exhibited, on the lingual side of the posterior root, near the point, a transverse fossa, which had undoubtedly been made for the passage of nervus inframaxillaris. During the extraction the nerve received, evidently, a severe concussion, or was partially torn; hence the anæsthesia.

A New Mydriatic.

Hyoscin, prepared by Ladenburg (*E. Emmert, Corresp. Bl. f. Schweiz. Aerzt.*, 1882, 2) and crystallizable by hydriodic acid, has proved to possess, if dropped into the eye, a remarkably rapid mydriatic effect, and surpasses, in this respect, atropia, in a high degree. But the solution should be only a half per cent. one, as stronger solutions (1½ per cent.) cause already general symptoms as: unconsciousness, disturbances of articulation, vertigo and dryness of the throat. It may be mentioned, that this preparation seems to be well tolerated by the conjunctiva, even if kept a long time in contact with it.

SPECIAL REPORTS.

No. X.—THERAPEUTIC PROGRESS.

JABORANDI IN TYPHOID FEVER.

In the course of an article on this subject in the *Medical Press and Circular*, Dr. Richard Ryder says that, having had his attention called to the value of sudorific treatment in the early stages of typhoid fever, he has used jaborandi extensively, and believes it to be the most valuable we possess, in the early stages, not only of febrile, but in acute and inflammatory affections, whether arising from cold, blood poisoning or other causes. He believes jaborandi to possess the power of eliminating from the human system, through the skin, almost any specific poison, if resorted to at once and before the poison has had time to set up its specific action. He says:

"My attention was first called to this plan of treatment many years ago, by hearing of a gentleman who held the position of resident physician to a large fever hospital. His belief was that he had frequently contracted both typhus and typhoid fever in the discharge of his duties, and his novel mode of arresting it was to mount his horse and ride for ten or fifteen miles, regaling himself on the road with sundry glasses of whisky punch. He would then return in a bath of perspiration, and feel no more of his dreaded enemy.

"A short time after hearing this account, I saw a lady who had been suddenly taken ill with all the premonitory symptoms of typhoid, and as she had suffered but a short time before from that disease, she was convinced in her own mind of the nature of the attack, and on being questioned said: 'I feel exactly as I did when I was sickening for typhoid fever.'

"I immediately resorted to active sudorific treatment, assisted by numerous blankets, covering all with a mackintosh sheet, to prevent the least evaporation. I then kept up the action of the skin till all the abnormal symptoms had subsided. In less than ten hours from the time of commencing the treatment the patient was convalescent, only complaining of weakness. That is more than twelve years ago, and since then I believe I have been the means of arresting a very large number of similar cases.

"The great difficulty I found in most cases was to produce a free action of the skin; if I could only produce that I had little fear for the result. The introduction, therefore, of jaborandi as a therapeutic agent was hailed by me as one of the most valuable additions to our materia medica. I look on it, in the early stages of fever, in the same light as salicylate of soda in acute rheumatism. I have found it reduce the temperature to its normal standard within a few hours, removing at the same time all abnormal symptoms.

"The preparation of jaborandi which I find the most convenient and reliable is the fluid extract. The dose being small, it is not likely to produce nausea or sickness. Some patients are more impervious to its effects than others. So I

begin with the minim dose, gradually increasing it every hour till the full action is obtained. The effects are more readily induced by putting the patient into bed between the blankets.

"The sweating usually commences in from three to five minutes, if the dose is sufficiently large and the preparation a reliable one. If there is no action of the skin from the first dose, within the hour I repeat it, giving double the quantity for the next. In conclusion, I must say that I have the most implicit confidence in this plan of treatment, and believe that jaborandi will effectually stop an attack of fever if taken in its first stage. But it frequently occurs that the medical man does not see the case till it is too far advanced to derive any benefit from it."

ANTISEPTIC INHALATIONS IN THE TREATMENT OF LUNG CAVITIES.

In the *Lancet*, Dr. Lawrence Humphrey reports two cases in which cavities in the lungs were treated by antiseptic inhalations, with marked benefit. Dr. Sinclair Coghill's respirator inhaler was used. The following solution was inhaled: two drachms each of the ethereal tincture of iodine and carbolic acid, one drachm of creasote and one ounce of rectified spirits. Ten drops of this solution was used in the respirator, morning and evening. The patient soon learned to inhale by the mouth and exhale by the nose, and was able thus to employ the respirator for one hour, in the morning and evening. In these cases the tuberculizing process had not commenced, the cavities being considered due to the breaking down of pneumonic deposits.

Dr. Thorowgood, under whose care these cases occurred, says:—

"My experience of all kinds of warm steaming inhalations in chronic phthisis has been most unsatisfactory; but in the introduction of this respirator inhaler we seem to have gained some real advance toward a means of checking purulent formation in lung cavities. The creasote, I expect, is the most valuable agent as an inhalant, and it is always necessary to train the patient in the use of the respirator, by teaching him to inspire through the mouth and expire through the nostrils."

KORONIKO IN CHRONIC DYSENTERY.

The *Medical Times and Gazette* says that Dr. J. Jardine, writing from Kijukiang, in the *Chinese Imperial Maritime Customs Medical Reports*, says that dysentery, acute and chronic, was very prevalent in that community during the autumn of 1880. Acute dysentery had generally become subacute or chronic before the patients applied at the hospitals, so that the chronic form had generally to be dealt with:—

"As every one knows, these are the difficult cases to influence speedily by drugs, and with the Chinese a change of air or sea voyage is beside the question. In these cases I was induced

to try koroniko, from the *Veronica parviflora*, which is largely used in New Zealand as a remedy in dysentery and diarrhoea, and some of the results exceeded my most sanguine expectations. Many who received the drug did not return to report themselves; but I have notes of three cases of chronic dysentery, varying in duration from six weeks to four years, and voiding from twenty to thirty motions containing blood and mucus daily. Fifteen doses of tincture of koroniko reduced them to one-half, other fifteen doses reduced them to three or four daily, and a third like quantity effected a complete cure. Judging from the few cases I have been able to follow, I augur a brilliant future for this remedy in the chronic forms of the disease."

PILOCARPIN IN URÆMIC CONVULSIONS.

In the *Medical Press*, July 5th, 1882, Mr. James Lemont reports the case of a laborer, aged 44, who was admitted to the hospital with swelling of the legs and abdomen, and difficulty in breathing, of twelve months' duration. His mother and brothers died of dropsy. He gave no history of scarlet fever or rheumatism, but had been a great drunkard and much exposed to sudden changes of temperature. Urine much diminished in quantity, albumen plentiful, fatty casts. He was ordered acetate of ammonia and compound jalap powder, with a vapor bath every evening. On the second night after admission he had become unconscious and had several convulsions. Chloral hydrate and potass. bromid. (forty grains of each), were given by enema, and a wet pack was used to induce diaphoresis, but without the slightest effect. One-third of a grain of pilocarpin was then injected subcutaneously, and in less than five minutes there was profuse perspiration, which lasted several hours. The patient remained unconscious for twenty hours, but there was no return of convulsions. At the end of a month there was no trace of oedema. The pilocarpin was given once more.

Dr. W. Brown Moir describes, in the *Lancet*, a case of uræmic convulsions and coma in a boy aged twelve, who was suffering from acute nephritis. An injection of a third of a grain of nitrate of pilocarpine and an enema of chloral hydrate were given. Copious perspiration was produced, but the convulsions continued, though less severe. On the following day the same treatment was repeated, with diaphoresis and decided abatement of the convulsions.

As soon as the ability to swallow returned, benzoic acid in two grain doses was administered every hour, and the strength supported by small enemata of beef tea, to some of which was added a little brandy. From the time the power of swallowing returned benzoic acid was the only remedy used, and its use was continued for six days.

It was given as above for the first forty-eight hours of that period, and after that in five-grain doses, every three hours. During these six days the patient, though free from convulsions and able to swallow, lay in a semi-conscious state, requiring to be spoken to loudly and shaken, to get him to take anything. His vision was completely lost. He knew no one, could see nothing held up before him, not even a bright light, pupils still continuing slightly dilated. Under the steady use of the acid the urine increased in quantity, grew lighter in color, and the albumen lessened daily. His mind became clear, and vision once more distinct, convalescence being gradually established. Whether the theory regarding carbonate of ammonia circulating in the blood being the cause of uræmia be correct or not (and the recent experiments of Oppler and Zalesky seem to indicate that it is not), this is the second time within my own limited experience of such cases in which benzoic acid has done good service. Whether its mode of action be the conversion of the poisonous alkali into a harmless acid and salt, or in what other specific way it acts, I am not prepared to say, but the above is strictly in accordance with facts.

TREATMENT OF DIPHTHERIA.

The *Medical Press* says that Dr. Deuker, who, during twenty-four years of very extensive practice in the Children's Hospital, St. Petersburg, has treated upward of two thousand cases of diphtheria, and tried all the remedies, both internal and external, employed in this affection, has obtained the best results from the following method, which he has employed for the last ten years. As soon as the white spots appear on the tonsils he gives a laxative mainly composed of senna, which produces an abundant evacuation. When the purgative effect has ceased he gives cold drinks, acidulated with hydrochloric acid, and every two hours a gargle composed of lime water and hot milk in equal parts. Dr. Deuker affirms that when this treatment is commenced early it is generally and rapidly successful.

THERAPEUTICS OF INFANTILE HEREDITARY SYPHILIS.

Although not strictly appropriate to this report, yet this subject possesses so much interest and is so frequently brought to the notice of the physician, that the following lecture on this subject, delivered by Dr. Archambault at the Hôpital des Enfants Malades, and translated from the *Gaz. des Hôp.* by the *Med. Times and Gazette*, will prove of immense service:—

"No question is perhaps more important than that of the treatment of syphilis, especially in an

infant who has acquired it by inheritance. If it is rare in the adult for this to prove a question of life and death, it unfortunately is not so with the new-born child; and accordingly as treatment is well or ill devised, and well or ill carried out, the infant will be cured or will perish. This importance of treatment is such that it ought even to precede birth, wherever that is possible; that is to say, when a pregnant woman is averred to be the subject of syphilis. The physician is thus, according to an old expression used in the law courts, *curateur au ventre*. Every woman certainly the subject of syphilis ought to be submitted to the anti-syphilitic treatment of the adult. Intervention should also take place in cases where, although no longer presenting any of the manifestations of the disease, the epoch is yet not distant at which some of the symptoms were observable. Suppose the mother exhibits no traces of syphilis, while the father is syphilitic; it is more difficult to decide. Nevertheless, if you suspect that she has had, unawares to herself, some of the manifestations of syphilis, do not hesitate to intervene; while if you feel certain that she has had nothing of the sort, abstain. I may say that, with regard to all the cases that have come under my notice, every time an infant has been born syphilitic its mother has been the subject of syphilis. Quite lately, I had occasion to observe, in a most honorable family, hereditary syphilis in an infant whose father had a chancre, followed by secondary symptoms, ten years before. He had married only a year ago, and had syphilized his wife, and consequently the infant. We are often consulted on the question whether a young man, formerly the subject of syphilis, can marry with impunity. In such cases we should always act with great severity; in proof of which you have the case I have just cited, of syphilis having been communicated at the end of nine years; and I could give you many other examples.

"Should one intervene on the earliest manifestations of hereditary syphilis? The question should answer itself in the affirmative; but yet some authors maintain that we must wait some time, in order that the infant may bear the treatment without danger. That is, I declare to you, most fatal advice, for you will find the child wasting away, while, on the contrary, if there is anything that can strengthen it, it is active intervention. When the child is suckled by its mother or nurse, you have two modes of treatment, the one complementary to the other—the direct treatment of the child, and the indirect treatment of the mother or nurse, to whom you give the suitable medicinal substances. But this latter mode of treatment is only an adjuvant, and employed alone it would prove absolutely insufficient. How is the infant to be treated directly by mercury? The preferable mode is to administer the sublimate dissolved in water or in milk, with which it will form without any inconvenience (notwithstanding what has been said about it) an albuminate of mercury. Baumes commences with one, one and a half, or two milligrams, progressively increasing the dose to six milligrams in the twenty-four hours; Bertin commences with two milligrams, to reach four, his maximum dose; Cullerier begins

with five milligrams; and Bassereau prescribes the dose for an adult reduced to a fourth or a third, which comes to pretty much the same. A milligram and a half seems a very small affair; but if you compare the weight of a child with that of an adult (the mean weight of an infant being five kilograms, while that of an adult is seventy), you will find that the dose advised for infants is comparatively a large one. For my part, I ordinarily commence with a milligram and a half per diem, and, according to the condition of the little patient, gradually reach the maximum of five or six milligrams. All depends upon whether we have to do with a slight syphilis or with grave symptoms. In certain cases, when I have found myself in the presence of a true cachexia with gastro-intestinal disturbance, I have begun with four milligrams from the first day. We may employ the *liquor* of Van Swieten, which is a solution of the sublimate in the proportion of a thousandth part, and which allows the quantity of mercury you wish to give to be very easily dosed. Thirty drops of this *liquor* correspond to one milligram and a half of the sublimate, and I prescribe them to be taken in milk, in three doses, morning, afternoon and evening, increasing by two drops every other day, until the maximum is attained. In the infant you do not find, as in the adult, any positive sign of the mercurial saturation of the organism, and the sole rule you have to guide you is the local and general condition of the child. Thus you will no longer continue to increase the dose when you find vegetations subsiding, ulcerations filling up, and spots disappearing, etc.

"Mercurial treatment has been accused of inducing intestinal disturbances and provoking diarrhoea; but it is exactly the contrary of this which takes place, and, save in some exceptional cases, the diarrhoea, which existed prior to any treatment, disappears almost always under the influence of mercury. Still, should the diarrhoea persist, or should it appear under the influence of a peculiar disposition, you may add, according to its intensity, a half or a whole drop, or even two drops, of laudanum to the *liquor*; or still better, you may prescribe five centigrams of *hydrarg. cum creta* twice a day, to which you may add, if required, half a drop of laudanum. External treatment may be employed either alone, or concurrently with internal treatment; but for my part I only have recourse to it when mercury is not tolerated internally, and on the condition that it is very effectually administered. A gram and a half of mercurial ointment may be rubbed in night and morning, continuing it for a considerable time, and varying the part on which the friction is made, in order to avoid producing eczematous eruptions. For the same reason the frictioned parts should be washed, from time to time, with mild soap. The curative effects of these frictions do not admit of doubt, and in cases of slight manifestation of the disease they may suffice. Nevertheless, whenever it is possible, I associate the internal with the external treatment. Sublimate baths also may be employed as adjuvants to general treatment in cutaneous manifestations of the disease. The dose for an infant is from two to six grams per

bath. This may be used even in any metallic bath, on condition of adding ten to fifteen grams of the chlorhydrate of ammonia, or even of simple chloride of sodium, in order to obviate the effects of the decomposition of the mercurial salt in presence of a metal.

"Such is the mode of treating the general accidents of hereditary syphilis in infants, a treatment to which we must add a good hygiene. Thus, alimentation should be severely watched, and especially if the child is brought up on the bottle, which is the case when the mother will not suckle her infant, and under the difficulty there is of finding a nurse who will consent to suckle a syphilitic infant, in the face of the risks she runs, unless she herself has been syphilized. Great care also must be taken to preserve the infant from the impression of cold, which may induce severe intestinal disturbances. It is well known, in fact, that if syphilis is of more frequent occurrence in warm climates, it is also there cured more easily."

COD-LIVER OIL IN YOUNG CHILDREN.

The *Lancet* says:—

If diarrhoea or vomiting be present—speaking generally, though by no means absolutely—the use of cod-liver oil internally is contra indicated in young children, but if neither of these symptoms be present, we cannot recall a more useful agent in the marasmic conditions of infancy. We cannot fix any limit of age, but we have seen infants of a month old distinctly improve while taking it, and we should have thought the enormous benefit of this agent to rickety children, both under and over twelve months old, had become a truism in medicine. Even in hereditary syphilis, although it will not take the place of gray powder, in our experience, cod-liver oil is a most valuable adjunct in treatment. Also, besides generally helping in the nutrition of a feeble infant, observant mothers often point out that the regular employment of cod liver oil assists in overcoming the occasional difficulty of constipation.

ETHER AND THYMOL IN CHRONIC RINGWORM OF THE SCALP.

In the *British Medical Journal*, Dr. Malcolm Morris says:—

That chronic ringworm of the scalp is a difficult disease to cure, every practitioner will admit. There are two propositions, as regards treatment, which I desire to bring under the notice of the profession. But, first, I must briefly refer to the factor in the problem we are called upon to consider—a fungus growing on and in the hairs, extending deeply into the follicles, as far as the roots.

In a paper published in the early part of last year, I pointed out that two things were essential in the treatment of this disease; first, some drug which is capable of destroying the fungus, and so preventing its further development; and, secondly, some vehicle to carry this drug to the part of the follicle where the fungus exists and grows. Arguing, from analogy, that certain chemical substances, called antiseptics, had the power of destroying certain low forms of vegetable life, such as bacilli, micrococci, and bac-

teria, I suggested that thymol or menthol should be used as the parasiticide, and that chloroform would answer the purpose as the absorbent. But, as the latter was volatile, I added oil to the compound, to prevent evaporation. While trying this liniment, of thymol, chloroform, and oil, in a large number of cases, I was struck with the fact that in some of them, in spite of the constant application of the remedy, the disease appeared on other parts of the body, and also on parts of the head previously free. It seemed difficult to understand that, in a strictly antiseptic medium, spores could be carried from part to part and live; but such seemed to be the case, for in some instances, when the liniment had been used too freely, and had run down the neck, fresh spots of the disease showed themselves in that region. During the time I was considering this difficulty, I found that Koch, in Berlin, had been making experiments on bacillus spores with various antiseptics, and found that these spores lived and developed even after being placed in carbolic oil (one part in twenty) for one hundred and ten days. This, I think, is a very strong argument that neither oil nor fat of any kind should be used when the full action of an antiseptic is required.

Of course, I am fully aware that all the best authorities recommend strong ointments, mercurial or otherwise, though for a very different reason from that I have been describing. They care little or nothing about the antiseptic action, so long as inflammation of the follicle, more or less severe, be produced. The spores are said not to live in inflammatory products (Thin). But surely cases are not uncommon in which the disease is transplanted to healthy parts by means of the discharge. I have seen a case in which croton oil was used to a single patch, and in a short time the head was covered with small centres of infection. In this case, the spores were carried in the discharge.

And, again, have not all the old chronic cases we see in practice, some of them of four or five years' duration, been cases treated by constant attacks of inflammation, and yet with the result that spores have been found with ease? My view is that to produce inflammation of a slight kind is useless; and that a severe kind is unjustifiable, on account of the risk of destroying the follicles altogether, and producing baldness.

To return to the question of fats: if fat of any kind from without protects the spores, as Koch asserts, the natural fat or sebaceous matter must have a similar effect. For this reason, I have tried to remove the fat by means of ether, and have abstained from using ointments or oil in the treatment. I wash, or more strictly dab, the patch each morning with ether, rectified spirits of wine and thymol, in the following proportions: ether, five drachms; rectified spirits of wine, two drachms and a half; and thymol, half a drachm—applying during the day glycerine with a very small trace of perchloride of mercury. Petroleum may be used in the place of the ether and spirit. One drachm and a half of petroleum oil takes up five grains of thymol. The ether or petroleum is of greater value than would at first sight appear, and for the following reason: There is a disease of the scalp known as

seborrhoea sicca, the chief characteristic of which is the falling out of the hair. This is caused by the absence of the natural fat in the sebaceous matter. It is cured by stimulating the glands to action, and by adding fat artificially. In the ringworm patch, we want the diseased hairs to fall out; and, by producing a condition similar to seborrhoea sicca—that is, by making the part very dry—we can actually produce this effect. Instead, therefore, of epilating by means of forceps, which is useless, as the hair breaks at the neck of the follicle, leaving the diseased part behind, we can epilate by dissolving the fat, and thus loosening the hair. In this way we can in a few days remove all the broken and diseased hairs.

THERAPEUTIC PROPERTIES OF QUINIA IODATE AND BROMATE.

At a recent meeting of the Medical Society of the College of Physicians in Ireland (*British Medical Journal*), Dr. Charles A. Cameron read a paper on the therapeutical and physiological properties of these new salts, which he had recently had prepared and introduced to the notice of the medical profession. He pointed out that the researches of Arthur Gamgee, Priestley and Larmuth had shown that the three forms of phosphoric acid and of vanadic acid had very different degrees of physiological activity. The salts of orthophosphoric acid were almost inert when their bases were inactive, while the pyrophosphates and metaphosphates were poisonous. The orthovanadic acid was poisonous, but pyrovanadic acid and metavanadic acid were still more poisonous. The high physiological activity of the pyrophosphates and metaphosphates had been attributed to the unsaturated condition of their nuclei; these salts were not statical, for they could take up additional basic material. Further, when super-oxygen compounds were introduced into the system, it might be expected that their oxygen, being loosely combined, would unite readily with elements of the blood. Dr. Cameron believed that the chlorates, bromates and iodates were more active physiological agents than the corresponding chlorides, bromides and iodides. Chlorate of sodium was more powerful than chloride of sodium or common salt. It might be inferred from analogy that iodate of potassium was a more active physiological agent than iodide of potassium. Some years ago Dr. Cameron suggested the use of ferric iodate as a substitute for the unstable ferrous iodide, and more than a year ago he had prepared an iodate of quinine in combination with an effervescing mixture. Each drachm of the effervescing iodate of quinine contained two grains, or one dose, of the iodate. It had been found very useful in the treatment of neuralgia, severe articular pains which had resisted the employment of the usual remedies, sluggish forms of pulmonary congestion, secondary syphilitic disease, and malarial enlargement of the spleen. Bromate of quinine might be prepared by precipitating barium iodate by sulphate of quinine, or by neutralizing quinine with bromic acid. It occurred when air-dried in small asbestos-like masses, which under the microscope was seen to consist of very long needles.

Dr. H. Colpoys Tweedy had seen good results from iodate of quinine in pulmonary congestion. Brigade Surgeon Jackson asked what was the relative expense of these new preparations compared with sulphate of quinine, with the action of which in intermittent fever he was much disappointed. Dr. Quinlan considered that the useful feature of the iodate of quinine consisted in the fact that its acid easily separated from it, thus leaving it circulating in the blood in a basic form. Mr. Knott had no doubt that the large proportion of easily dissociated oxygen present in both the iodate and the bromate of quinine would add materially to the physiological activity of these drugs. He should not be surprised to hear of the bromate of quinine proving a specific in some forms of neuralgia, as the sedative effects of the bromine would be added to the usual action of quinine. The forms of neuralgia in which the latter drug had given best results were those in which evidence existed of malarious or rheumatic influence. In both these cases there was a marked determination of blood to the part, and the periodic dilatation of the blood vessels which occurred in the former variety—every pulsation of which was conveyed to the over-sensitive nerves which accompanied them—was well known. He believed that there was sufficient evidence in favor of the idea that the more prominent physiological effects of quinine were essentially due to diminution of the systemic oxidation which took place under the influence of this drug. It had also been observed to diminish the metamorphosis and elimination of nitrogenous compounds, especially uric acid. The excess of oxygen in the newly described salts would probably act as a beneficial corrective. The capillary contraction which followed the ingestion of quinine promoted the same results as that now described. Dr. Cameron, in reply, said the great point he had endeavored to establish was that the addition of oxygen to the iodine compounds, instead of diminishing, increased their activity.

(To be Continued.)

CORRESPONDENCE.

Carcinoma of the Stomach.

ED. MED. AND SURG. REPORTER:—

I submit the following brief history of a case of carcinoma of the stomach: David Leavitt, American, occupation farmer, aged 44 years. Served as a soldier in the late war. Since his discharge from the service, had suffered more or less continually from chronic gastric and intestinal catarrh. During the last three years of his life, and until within two months of his death, he had received no treatment from the hands of a physician, but had taken a great many different nostrums advertised for deranged digestion. When first called to see him, I found great emaciation. He complained of no pain, save a sense of uneasiness in the right hypochondriac, and oppression in the epigastrium, vomiting, at intervals of twenty-four to forty-eight hours, of great quantities of fluid intermixed with considerable "coffee ground" material. Upon the most careful and repeated examinations no tumor

could be discovered, though the walls of the abdomen nearly approached the vertebral column. There was a pronounced cancerous cachexia, and a diagnosis of carcinoma of the pyloric orifice was rendered. The patient rapidly failed, and death resulted, from inanition. Twelve hours after death an autopsy of the abdominal cavity was permitted. The stomach was considerably dilated; along the upper border of the lesser curvature, extending from the pyloric orifice two inches, there was infiltration of the tissue, feeling rough, knobby and somewhat lobulated; this infiltration also extended through the pyloric orifice, into the duodenum for two inches, completely filling the orifice and intestine. The other viscera were, apparently, free from any cancerous appearance. The pathological condition was regarded as a colloid form of carcinoma. The case is of peculiar interest, from the fact that the most important and almost pathognomonic symptom of gastric carcinoma was absent, the presence of a tumor.

Tracy, Minn.

CLAUDE M. FERRO, M.D.

Complete Lateral Dislocation of the Elbow Joint ED. MED. AND SURG. REPORTER.

A short time back the following case came under my notice: H. C., a large, bony man, was driving a colt to a dog cart, when the colt shied off to the side of the road and threw him from the cart. In his fall his left arm was caught in the wheel and a complete outward dislocation of both bones of the forearm produced. I saw him about an hour after he received the injury. Having placed him well under the influence of ether, I made a careful examination of the joint. When I found the following condition of things: The radius and ulna were both dislocated from their articulating surfaces on the humerus. The olecranon was twisted around nearly in front of the joint, passing completely over the external condyle, while the head of the radius was dislocated forward and inward, the cup-shaped extremity of the head of the radius being easily felt through the integument of the arm. With the assistance of my father, Dr. Edwin C. Leedom, I succeeded in restoring the displaced bones to their proper position. We were unable to detect any fracture, both bones appearing to be intact. Nearly all the authorities who have written on this subject agree in saying that the most common cause of this accident is a blow upon the inner side of the forearm or the outer side of the humerus, or from the action of two forces pressing upon the arm in opposite directions in close proximity to the joint. A fall upon the hand is said to have produced it, which I think must certainly be a mistake. I do not see how a fall upon the hand could possibly produce such an injury. I can readily understand how it might be produced by two forces pressing in opposite directions near the joint, one upon the outside of the humerus, the other upon the inside of the forearm. But it seems to me that the most usual cause of this injury would be a violent twisting, such as this man's arm received in the wheel, or the twisting caused by revolving machinery. So far as I can learn, a complete internal dislocation has never been recorded. The force applied in this in-

stance must have been very great, and the laceration of ligaments about the joint considerable; nevertheless, the patient made a good recovery, although there is some loss of motion and stiffness in the joint. This case was one of unusual interest to me, not only on account of the rare form of the injury, but because it seemed to me almost impossible that the ulna could be so twisted around without sustaining a fracture of the olecranon; yet such was the case.

OSCAR LEEDOM, M.D.

Montgomery Co., Pa.

NEWS AND MISCELLANY.

Preliminary Examinations for the University of Pennsylvania.

In order to facilitate the admission of students and to aid the upward tendency of medical education, the authorities of the University of Pennsylvania have appointed physicians, graduates of that school, in the different prominent cities of the Union, remote from Philadelphia, whose duty it shall be to examine candidates for admission into the Medical Department. The result of the examination is forwarded to the authorities of the University, who, in turn, notify the candidate of his success or failure. By this means the applicant is spared the expenditure of time and money necessary to a trip to this city on an uncertainty.

An Appropriate Reference.

A physician in Texas writes us: "I beg leave to call the attention of G. C. Savage, M.D., of Jackson, Tenn., who gave the profession, in your last issue, his 'discovery that hypermetropia and astigmatism, either alone or combined, are the cause of sick headache and that a properly fitted glass is the cure for it,' to the article of Prof. S. Weir Mitchell, M.D., in your valuable journal, No. 909, August 1st, 1874, pages 81, 82 and 83, also No. 936, February 6th, 1875, pages 101 and 102."

Anniversaries.

April 24th, Prof. Henle, the celebrated anatomist in Göttingen, celebrated his 50th anniversary as physician. Many eminent persons were present. Nearly all Universities of Germany sent congratulations to this rare festival.

April 18th, Prof. von Arlt, the well-known ophthalmologist in Vienna, celebrated his 70th birthday.

Items.

—Mr. T. Spencer Wells, Surgeon to the Queen's Household, has been elected President of the Royal College of Surgeons of London.

—Dr. George J. Grimes, of Columbus, Ga., reports (*Atlanta Med. Register*) a successful ligation of the femoral artery, for traumatic aneurism.

—Two hundred and twenty thousand pounds of quinine are consumed annually throughout the world, about one-quarter of which is used in the United States.

—Japan has now six medical journals published in the native language.

—Dr. W. B. Carpenter, F.R.S., is announced to deliver the next Lowell lectures at Boston.

—Prof. William H. Pancoast has had executed a bust of his father, the late Prof. Joseph Pancoast, for presentation to the Jefferson Medical College.

—The Sultan of Turkey has given a site in Jerusalem for the purpose of erecting a hospice and ophthalmic dispensary, under the auspices of the English branch of the Order of St. John.

—The honorary degree of D.C.L. has been conferred by the University of Oxford on Sir William Muir, M.D., K.C.S.I., Member of the Council of the Secretary of State for India; and Dr. Allen Thomson, F.R.S., formerly Professor of Anatomy in the University of Glasgow.

OBITUARY NOTICES.

DR. DANIEL M. ELLIOT.

Dr. Daniel M. Elliot, of Peabody, Mass., died July 26th, aged 39 years and 9 months.

Dr. Elliot was born at Littleton, Mass., October 9th, 1842. He received his preparatory education at Pembroke, N. H., and entered Dartmouth College, where he graduated, in the class of 1864, at 21 years of age. He was afterwards teacher in the high school at Castine, Me., and also at McIndoes Falls Academy, Vt. He entered Harvard Medical School in 1866, graduating therefrom in the spring of 1870, and returning to his native place, where he commenced the practice of his profession. At about this time he was married to Miss Sarah A. Child. He soon removed from Littleton to South Deerfield, Mass., where he remained until the spring of 1877, when he moved to Peabody, where he continued in practice until his last sickness. The autopsy showed that he died from meningeal congestion with effusion.

It can truly be said of Dr. Elliot, that those who knew him best loved him most. Possessed of a sensitive nature, and of unobtrusive ways, he was not as well calculated for making his way among strangers as many of inferior abilities. He lived a strictly conscientious life; while despising a mean act, no one was more ready to forgive and overlook a fault.

A great loss to those who had chosen him as their family physician; none, however, can feel his absence more keenly than those of his own profession, with whom he was associated.

This world was indeed better because he lived in it.

DR. G. EDMUND BREHMAN.

Dr. Brehman died suddenly, of neuralgia of the heart, at his office, in Altoona, Pa., on the afternoon of July 20th. He was born on July 12th, 1846, at McVeytown, Mifflin county, Pa., and was educated at the McVeytown Academy. He read medicine in the office and under the instructions of Dr. A. Rothrock, of McVeytown, and after the full term of study was graduated doctor of medicine in the medical department of the University of Pennsylvania, March 13th, 1869. He located in Altoona in 1869, and after prac-

ticing one year removed to Oakosh, Michigan, where he remained one year and then returned to Altoona in 1870, and has practiced there continuously ever since. He was married April 29th, 1878, to Miss Susan Jessie Smith, daughter of Mr. S. H. and Mrs. Susan A. Smith. Dr. Brehman was a member of the Blair County Medical Society, of the Juniata Valley Medical Association, of the American Medical Association, and of the Altoona Academy of Medicine and Surgery.

DR. J. V. SCHENCK, OF CAMDEN, N. J.

Dr. John Voorhees Schenck, one of Camden's most prominent physicians, died, July 25th, at Atlantic City, of typhoid fever. The deceased was fifty-seven years of age, and was well known through West Jersey, and especially so in Camden, where he practiced his profession for thirty-four years. Dr. Schenck was a son of Dr. Ferdinand Schenck, of Cumberland county, New Jersey. He was educated at Rutgers College, and graduated from that institution as a physician. Afterward he went through another course at the University of Pennsylvania, and graduated from there with high honors. The deceased was to Camden almost what Drs. Gross and Pancoast are and have been to Philadelphia. He was regarded as thoroughly skillful, both as a surgeon and a physician, and enjoyed one of the largest practices in that city.

QUERIES AND REPLIES.

Subscriber.—The directions for changing the old into the metric system will be found in the "Physician's Daily Pocket Record," published at this office.

J. G. K. who has used amyl nitrite for lumbago, as recommended in our issue of July 23d, desires information on the following points, from the readers of this journal who may see it:—

1st. Do not patients find the excessive burning pain caused by the solvent too great to allow the full amount of 10 M to be injected.

2d. What other solvent could be used that would cause less pain.

MARRIAGES.

EVANS—MOORE.—On the 18th of July, by Rev. Bishop Simpson, Dr. William D. Evans, of Denver, Col., and Miss Ada J. Moore, daughter of Mrs. E. H. Moore, of Chester Springs, Pa.

RANSOM—BRISBANE.—In St. John's Church, Richfield Springs, July 18th, by the Rev. Robert Granger, Dr. George Manley Ransom, of Richfield Springs, and Margaret Lawrence Brisbane, youngest daughter of the late William Brisbane, of South Carolina.

WINSLOW—BISHOP.—On Wednesday, July 12th, at the bride's residence, by the Rev. H. C. Badger, Dr. John Winslow and Mrs. Elizabeth Hamilton Bishop, both of Ithaca, N. Y.

DEATHS.

BRUSH.—At Norwalk, Ct., July 8th, 1882, Francis V. Brush, M.D.

GANISON.—On the 19th inst., at his residence, Newburgh, N. Y., Dr. Isaac Ganison, aged 80 years.

GLENNEY.—In New York, on July 17th, of consumption, Dr. Geo. H. Glenney, in his 41st year.

SCHENCK.—At Atlantic City, on July 25th, 1882, John V. Schenck, M.D., in the 58th year of his age.